

RXEF Series



**Description**

Littelfuse PolySwitch radial-leaded devices represent the most comprehensive and complete set of PPTC products available in the industry today. RXEF series offers low hold currents (down to 50mA) and high voltage rating (up to 72V).

**Features**

- Resettable and single-use overcurrent devices
- Wide range of form factor and termination methods
- Devices compatible with high-volume electronics assembly
- RoHS compliant, Lead-Free and Halogen-Free

**Applications**

- Satellite video receivers
- Industrial controls
- Transformers
- Computer motherboards
- Modems
- USB hubs, ports and peripherals
- IEEE 1394 ports
- CD-ROMs
- Game machines
- Battery packs
- Phones
- Fax machines
- Analog and digital line cards
- Printers

**Agency Approvals**

AGENCY	AGENCY FILE NUMBER
	E74889
	78165
	72161785

**Additional Information**



Datasheet



Resources



Samples

**Electrical Characteristics**

Part Number	$I_H$	$I_T$	$V_{MAX}$		$I_{MAX}$		$P_{D\ Typ}$	Max Time-to-trip		$R_{MIN}$	$R_{MAX}$	$R_{1MAX}$	Lead Size (mm <sup>2</sup> /AWG)
	(A)	(A)	(V <sub>DC</sub> )	(V <sub>AC RMS</sub> )	(DC <sub>ADC</sub> )	(AC <sub>ARMS</sub> )		(A)	(s)				
<b>RXEF – 60V</b>													
RXEF005	0.05	0.10	60	–	40	–	0.22	0.25	5.0	7.3	11.10	20.00	0.128/26
RXEF010	0.10	0.20	60	–	40	–	0.38	0.50	4.0	2.5	4.50	7.50	0.205/24
RXEF017	0.17	0.34	60	–	40	–	0.48	0.85	3.0	3.3	5.21	8.00	0.205/24

**Notes:**

- $I_H$  : Hold current: maximum current device will pass without interruption in 20°C still air.
- $I_T$  : Trip current: minimum current that will switch the device from low resistance to high resistance in 20°C still air.
- $V_{MAX}$  : Maximum continuous voltage device can withstand without damage at rated current.
- $I_{MAX}$  : Maximum fault current device can withstand without damage at rated voltage.
- $P_D$  : Power dissipated from device when in the tripped state in 20°C still air.

- $R_{MIN}$  : Minimum resistance of device as supplied at 20°C unless otherwise specified.
- $R_{MAX}$  : Maximum resistance of device as supplied at 20°C unless otherwise specified.
- $R_{1MAX}$  : Maximum resistance of device when measured one hour post reflow (surface-mount device) or one hour post trip (radial-leaded device) at 20°C unless otherwise specified.

\* Electrical characteristics determined at 25°C.

### Electrical Characteristics

(Cont'd)

Part Number	$I_H$	$I_T$	$V_{MAX}$		$I_{MAX}$		$P_{D\ Typ}$	Max Time-to-trip		$R_{MIN}$	$R_{MAX}$	$R_{TMAX}$	Lead Size (mm <sup>2</sup> /AWG)
	(A)	(A)	(V <sub>DC</sub> )	(V <sub>AC RMS</sub> )	(DC <sub>ADC</sub> )	(AC <sub>ARMS</sub> )	(W)	(A)	(s)	(Ω)	(Ω)	(Ω)	
<b>RXEF – 72V</b>													
RXEF020	0.20	0.40	72	72	40	40	0.41	1.00	2.2	1.83	2.75	4.40	0.205/24
RXEF025	0.25	0.50	72	72	40	40	0.45	1.25	2.5	1.25	1.95	3.00	0.205/24
RXEF030	0.30	0.60	72	72	40	40	0.49	1.50	3.0	0.88	1.33	2.10	0.205/24
RXEF040	0.40	0.80	72	72	40	40	0.56	2.00	3.8	0.55	0.86	1.29	0.205/24
RXEF050	0.50	1.00	72	72	40	40	0.77	2.50	4.0	0.50	0.77	1.17	0.205/24
RXEF065	0.65	1.30	72	72	40	40	0.88	3.25	5.3	0.31	0.48	0.72	0.205/24
RXEF075	0.75	1.50	72	72	40	40	0.92	3.75	6.3	0.25	0.40	0.60	0.205/24
RXEF090	0.90	1.80	72	72	40	40	0.99	4.50	7.2	0.20	0.31	0.47	0.205/24
RXEF110	1.10	2.20	72	72	40	40	1.50	5.50	8.2	0.15	0.25	0.38	0.520/20
RXEF135	1.35	2.70	72	72	40	40	1.70	6.75	9.6	0.12	0.19	0.30	0.520/20
RXEF160	1.60	3.20	72	72	40	40	1.90	8.00	11.4	0.09	0.14	0.22	0.520/20
RXEF185	1.85	3.70	72	72	40	40	2.10	9.25	12.6	0.08	0.12	0.19	0.520/20
RXEF250	2.50	5.00	72	72	40	40	2.50	12.50	15.6	0.05	0.08	0.13	0.520/20
RXEF300	3.00	6.00	72	72	40	40	2.80	15.00	19.8	0.04	0.06	0.10	0.520/20
RXEF375	3.75	7.50	72	72	40	40	3.20	18.75	24.0	0.03	0.05	0.08	0.520/20

**Notes:**

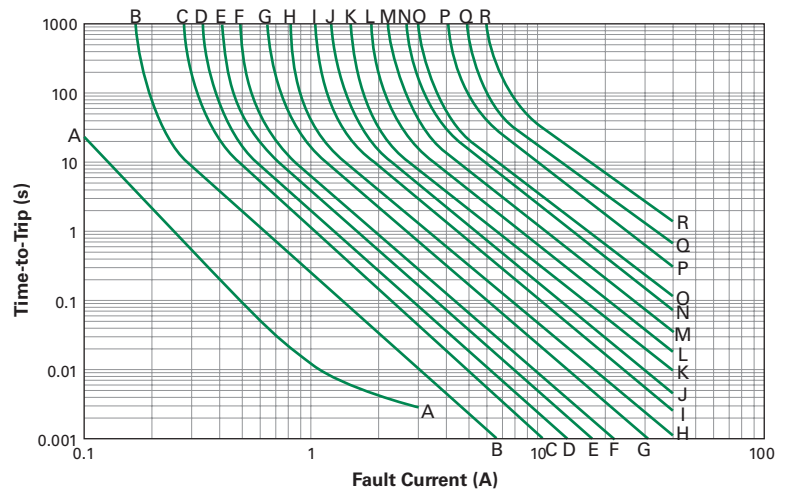
$I_H$  : Hold current: maximum current device will pass without interruption in 20°C still air.  
 $I_T$  : Trip current: minimum current that will switch the device from low resistance to high resistance in 20°C still air.  
 $V_{MAX}$  : Maximum continuous voltage device can withstand without damage at rated current.  
 $I_{MAX}$  : Maximum fault current device can withstand without damage at rated voltage.  
 $P_D$  : Power dissipated from device when in the tripped state in 20°C still air.

$R_{MIN}$  : Minimum resistance of device as supplied at 20°C unless otherwise specified.  
 $R_{MAX}$  : Maximum resistance of device as supplied at 20°C unless otherwise specified.  
 $R_{TMAX}$  : Maximum resistance of device when measured one hour post reflow (surface-mount device) or one hour post trip (radial-leaded device) at 20°C unless otherwise specified.  
 \* Electrical characteristics determined at 25°C.

### Typical Time-to-Trip Curves at 20°C

**RXEF**

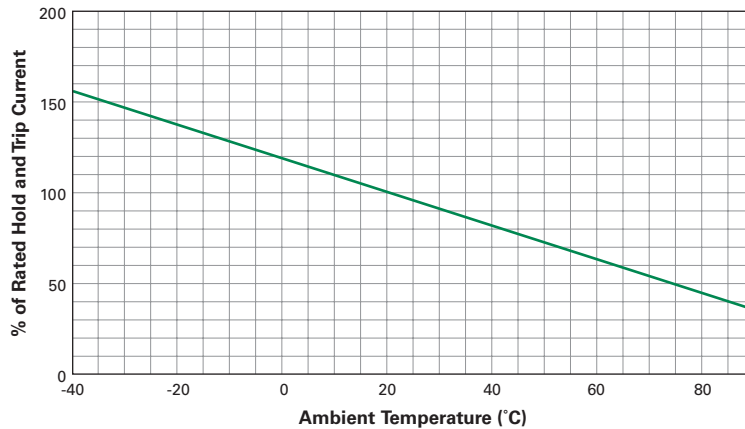
- A = RXEF005            J = RXEF075
- B = RXEF010        K = RXEF090
- C = RXEF017        L = RXEF110
- D = RXEF020        M = RXEF135
- E = RXEF025        N = RXEF160
- F = RXEF030        O = RXEF185
- G = RXEF040        P = RXEF250
- H = RXEF050        Q = RXEF300
- I = RXEF065        R = RXEF375



**Temperature Derating**

Maximum Ambient Temperature										
	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C
Hold Current (A)										
RXEF – 60V										
RXEF005	0.078	0.068	0.06	0.05	0.048	0.04	0.035	0.032	0.027	0.02
RXEF010	0.160	0.140	0.11	0.10	0.096	0.08	0.072	0.067	0.050	0.04
RXEF017	0.260	0.230	0.21	0.17	0.160	0.14	0.120	0.110	0.090	0.07
RXEF – 72V										
RXEF020	0.31	0.27	0.24	0.20	0.19	0.16	0.14	0.13	0.11	0.08
RXEF025	0.39	0.34	0.30	0.25	0.24	0.20	0.18	0.16	0.14	0.10
RXEF030	0.47	0.41	0.36	0.30	0.29	0.24	0.22	0.20	0.16	0.12
RXEF040	0.62	0.54	0.48	0.40	0.38	0.32	0.29	0.25	0.22	0.16
RXEF050	0.78	0.68	0.60	0.50	0.48	0.41	0.36	0.32	0.27	0.20
RXEF065	1.01	0.88	0.77	0.65	0.62	0.53	0.47	0.41	0.35	0.26
RXEF075	1.16	1.02	0.89	0.75	0.72	0.61	0.54	0.47	0.41	0.30
RXEF090	1.40	1.22	1.07	0.90	0.86	0.73	0.65	0.57	0.49	0.36
RXEF110	1.71	1.50	1.31	1.10	1.06	0.89	0.79	0.69	0.59	0.44
RXEF135	2.09	1.84	1.61	1.35	1.30	1.09	0.97	0.85	0.73	0.54
RXEF160	2.48	2.18	1.90	1.60	1.54	1.30	1.15	1.01	0.86	0.64
RXEF185	2.87	2.52	2.20	1.85	1.78	1.50	1.33	1.17	1.00	0.74
RXEF250	3.88	3.40	2.98	2.50	2.40	2.03	1.80	1.58	1.35	1.00
RXEF300	4.65	4.08	3.57	3.00	2.88	2.43	2.16	1.89	1.62	1.20
RXEF375	5.81	5.10	4.46	3.75	3.60	3.04	2.70	2.36	2.03	1.50

**Temperature Derating Curve**



### Physical Specifications

<b>Lead Material</b>	RXEF005: Tin-plated Nickel-copper Alloy, 0.128mm <sup>2</sup> (26AWG), ø0.40mm (0.016in) RXEF010: Tin-plated Nickel-copper Alloy, 0.205mm <sup>2</sup> (24AWG), ø0.51mm (0.020in) RXEF017 to 040: Tin-plated Copper-clad Steel, 0.205mm <sup>2</sup> (24AWG), ø0.51mm (0.020in) RXEF050 to 090 : Tin-plated Copper, 0.205mm <sup>2</sup> (24AWG), ø0.51mm (0.020in) RXEF110 to 375: Tin-plated Copper, 0.52mm <sup>2</sup> (20AWG), ø0.81mm (0.032in)
<b>Soldering Characteristics</b>	Solderability per ANSI/J-STD-002 Category 3 RXEF005, RXEF010 Meet ANSI/J-STD-002 Category 1
<b>Solder Heat Withstand</b>	RXEF005- RXEF025: per IEC-STD 68-2-20, Test Tb, Method 1a, Condition a; Can Withstand 5s at 260°C ±5°C  All Other Sizes: per IEC-STD 68-2-20, Test Tb, Method 1a, Condition b; Can Withstand 10s at 260°C ±5°C
<b>Insulating Material</b>	Cured, Flame-retardant Epoxy Polymer; Meets UL 94V-0
<b>Operation Temperature</b>	-40°C~85°C

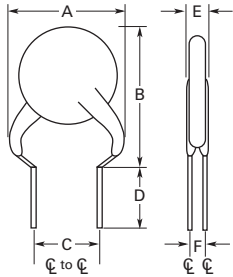
**Note:** Devices are not designed to be placed through a reflow process.

### Environmental Specifications

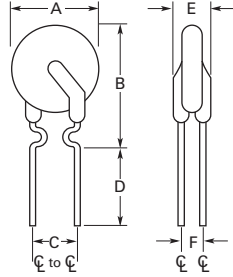
Test	Conditions	Resistance Change
<b>Passive Aging</b>	-40°C, 1000 hrs	±5%
	85°C, 1000 hrs	±5%
<b>Humidity Aging</b>	85°C, 85% R.H., 1000 hrs	±10%
<b>Thermal Shock</b>	85°C to -40°C 10 times	±10%
<b>Solvent Resistance</b>	MIL-STD-202, Method 215F	No change

<b>Moisture Resistance Level</b>	Level 1, J-STD-020
<b>Storage Conditions</b>	40°C max, 70% RH max; devices should remain in original sealed bags prior to use. Devices may not meet specified values if these storage conditions are exceeded.

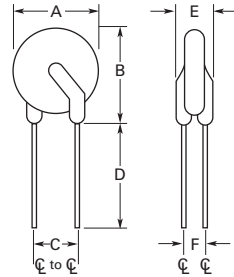
**Dimension Figures**



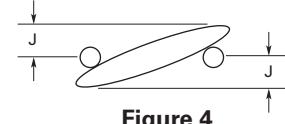
**Figure 1**



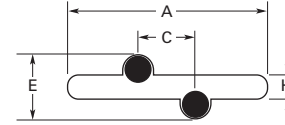
**Figure 2**



**Figure 3**



**Figure 4**

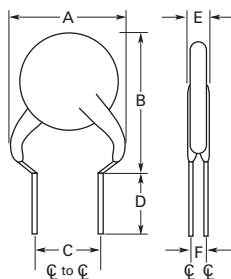


**Figure 5**

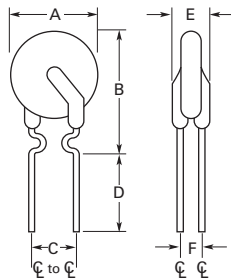
**Dimensions and Weights**

Part Number	Dimensions in Millimeters (Inches)												Figure	Device Mass (g) (Only for Reference)
	A		B		C		D		E		H	J		
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Typ	Typ		
<b>RXEF – 60V</b>														
RXEF005	—	8.0 (0.32)	—	8.3 (0.33)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.07 (0.042)	1.0 (0.04)	1,4,5	0.069
RXEF010	—	7.4 (0.29)	—	11.6 (0.46)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.07 (0.042)	1.0 (0.04)	2,4,5	0.128
RXEF017	—	7.4 (0.29)	—	12.7 (0.50)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.68 (0.066)	1.7 (0.07)	2,4,5	0.174
<b>RXEF – 72V</b>														
RXEF020	—	7.4 (0.29)	—	11.7 (0.46)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.0 (0.04)	2,4,5	0.119
RXEF025	—	7.4 (0.29)	—	12.7 (0.50)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.0 (0.04)	2,4,5	0.130
RXEF030	—	7.4 (0.29)	—	12.7 (0.50)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.0 (0.04)	2,4,5	0.143
RXEF040	—	7.6 (0.30)	—	13.5 (0.53)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.2 (0.05)	2,4,5	0.202
RXEF050	—	7.9 (0.31)	—	13.7 (0.54)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.2 (0.05)	2,4,5	0.210
RXEF065	—	9.4 (0.37)	—	14.5 (0.57)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.5 (0.06)	2,4,5	0.277
RXEF075	—	10.2 (0.40)	—	15.2 (0.60)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.5 (0.06)	2,4,5	0.310
RXEF090	—	11.2 (0.44)	—	15.8 (0.62)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.17 (0.046)	1.5 (0.06)	2,4,5	0.365

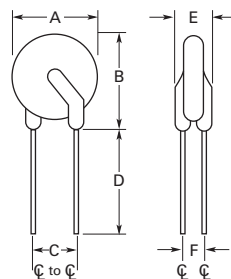
### Dimension Figures



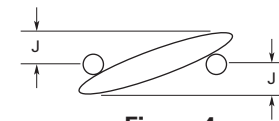
**Figure 1**



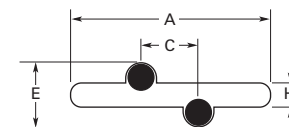
**Figure 2**



**Figure 3**



**Figure 4**



**Figure 5**

### Dimensions and Weights

(Cont'd)

Part Number	Dimensions in Millimeters (Inches)												Figure	Device Mass (g) (Only for Reference)
	A		B		C		D		E		H	J		
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Typ	Typ		
<b>RXEF - 72V</b>														
RXEF110	—	12.8 (0.50)	—	17.5 (0.69)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.2 (0.05)	3,4,5	0.546
RXEF135	—	14.5 (0.57)	—	19.1 (0.75)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.2 (0.05)	3,4,5	0.653
RXEF160	—	16.3 (0.64)	—	20.8 (0.82)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.5 (0.06)	3,4,5	0.684
RXEF185	—	17.5 (0.69)	—	22.4 (0.88)	4.3 (0.17)	5.8 (0.23)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.5 (0.06)	3,4,5	0.808
RXEF250	—	20.8 (0.82)	—	25.4 (1.00)	9.4 (0.37)	10.9 (0.43)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.7 (0.07)	3,4,5	1.139
RXEF300	—	23.9 (0.94)	—	28.6 (1.13)	9.4 (0.37)	10.9 (0.43)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.7 (0.07)	3,4,5	1.379
RXEF375	—	27.2 (1.07)	—	31.8 (1.25)	9.4 (0.37)	10.9 (0.43)	7.6 (0.30)	—	—	3.0 (0.12)	1.37 (0.054)	1.7 (0.07)	3,4,5	1.708

### Packaging and Marking Information

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
<b>RXEF – 60V</b>						
RXEF005	500	—	—	10,000	—	UL, CSA, TÜV, CQC
RXEF005-2	—	3,000	—	15,000	—	UL, CSA, TÜV, CQC
RXEF005-AP	—	—	2,000	10,000	—	UL, CSA, TÜV, CQC
RXEF010	500	—	—	10,000	X10	UL, CSA, TÜV, CQC
RXEF010-2	—	3,000	—	15,000	X10	UL, CSA, TÜV, CQC
RXEF010-AP	—	—	2,000	10,000	X10	UL, CSA, TÜV, CQC
RXEF017	500	—	—	10,000	X17	UL, CSA, TÜV, CQC
RXEF017-2	—	2,500	—	12,500	X17	UL, CSA, TÜV, CQC
RXEF017-AP	—	—	2,000	10,000	X17	UL, CSA, TÜV, CQC
<b>RXEF – 72V</b>						
RXEF020	500	—	—	10,000	X20	UL, CSA, TÜV, CQC
RXEF020-2	—	3,000	—	15,000	X20	UL, CSA, TÜV, CQC
RXEF020-AP	—	—	2,000	10,000	X20	UL, CSA, TÜV, CQC
RXEF025	500	—	—	10,000	X25	UL, CSA, TÜV, CQC
RXEF025-2	—	3,000	—	15,000	X25	UL, CSA, TÜV, CQC
RXEF025-AP	—	—	2,000	10,000	X25	UL, CSA, TÜV, CQC
RXEF030	500	—	—	10,000	X30	UL, CSA, TÜV, CQC
RXEF030-2	—	3,000	—	15,000	X30	UL, CSA, TÜV, CQC
RXEF030-AP	—	—	2,000	10,000	X30	UL, CSA, TÜV, CQC
RXEF040	500	—	—	10,000	X40	UL, CSA, TÜV, CQC
RXEF040-2	—	3,000	—	15,000	X40	UL, CSA, TÜV, CQC
RXEF040-AP	—	—	2,000	10,000	X40	UL, CSA, TÜV, CQC
RXEF050	500	—	—	10,000	X50	UL, CSA, TÜV, CQC
RXEF050-2	—	3,000	—	15,000	X50	UL, CSA, TÜV, CQC
RXEF050-AP	—	—	2,000	10,000	X50	UL, CSA, TÜV, CQC
RXEF065	500	—	—	10,000	X65	UL, CSA, TÜV, CQC
RXEF065-2	—	3,000	—	15,000	X65	UL, CSA, TÜV, CQC
RXEF065-AP	—	—	2,000	10,000	X65	UL, CSA, TÜV, CQC
RXEF075	500	—	—	10,000	X75	UL, CSA, TÜV, CQC
RXEF075-2	—	3,000	—	15,000	X75	UL, CSA, TÜV, CQC
RXEF075-AP	—	—	2,000	10,000	X75	UL, CSA, TÜV, CQC
RXEF090	500	—	—	10,000	X90	UL, CSA, TÜV, CQC
RXEF090-2	—	3,000	—	15,000	X90	UL, CSA, TÜV, CQC
RXEF090-AP	—	—	2,000	10,000	X90	UL, CSA, TÜV, CQC
RXEF110	500	—	—	10,000	X110	UL, CSA, TÜV, CQC
RXEF110-2	—	1,500	—	7,500	X110	UL, CSA, TÜV, CQC
RXEF110-AP	—	—	1,000	5,000	X110	UL, CSA, TÜV, CQC

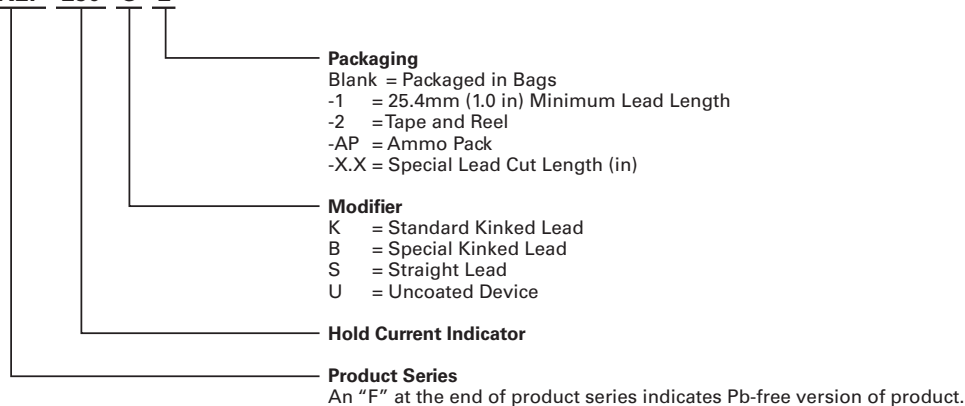
### Packaging and Marking Information

(Cont'd)

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
<b>RXEF – 72V</b>						
RXEF135	500	—	—	10,000	X135	UL, CSA, TÜV, CQC
RXEF135-2	—	1,500	—	7,500	X135	UL, CSA, TÜV, CQC
RXEF135-AP	—	—	1,000	5,000	X135	UL, CSA, TÜV, CQC
RXEF160	500	—	—	10,000	X160	UL, CSA, TÜV, CQC
RXEF160-2	—	1,500	—	7,500	X160	UL, CSA, TÜV, CQC
RXEF160-AP	—	—	1,000	5,000	X160	UL, CSA, TÜV, CQC
RXEF185	500	—	—	10,000	X185	UL, CSA, TÜV, CQC
RXEF185-2	—	1,500	—	7,500	X185	UL, CSA, TÜV, CQC
RXEF185-AP	—	—	1,000	5,000	X185	UL, CSA, TÜV, CQC
RXEF250	250	—	—	5,000	X250	UL, CSA, TÜV, CQC
RXEF250-2	—	1,000	—	5,000	X250	UL, CSA, TÜV, CQC
RXEF250-AP	—	—	1,000	5,000	X250	UL, CSA, TÜV, CQC
RXEF300	250	—	—	5,000	X300	UL, CSA, TÜV, CQC
RXEF300-2	—	1,000	—	5,000	X300	UL, CSA, TÜV, CQC
RXEF300-AP	—	—	1,000	5,000	X300	UL, CSA, TÜV, CQC
RXEF375	250	—	—	5,000	X375	UL, CSA, TÜV, CQC

### Part Ordering Number System

**RXEF 250 U 2**



**Note:** Kinked parts are recommended to control the height of the part on the PCB in non-auto PCB applications.



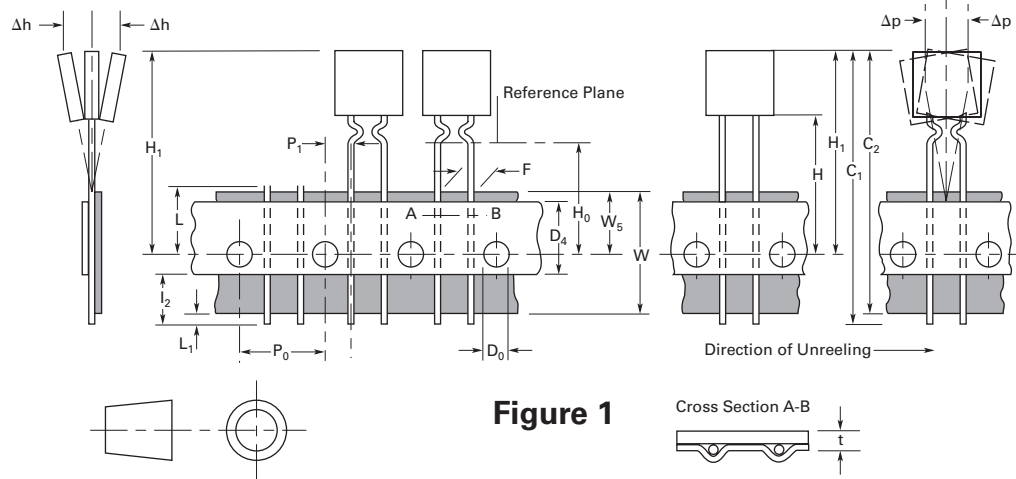
### Tape and Reel Specifications

RXEF devices are available in tape and reel packaging per EIA468-B/IEC60286-2 standards. See Figures 1 and 2 for details.

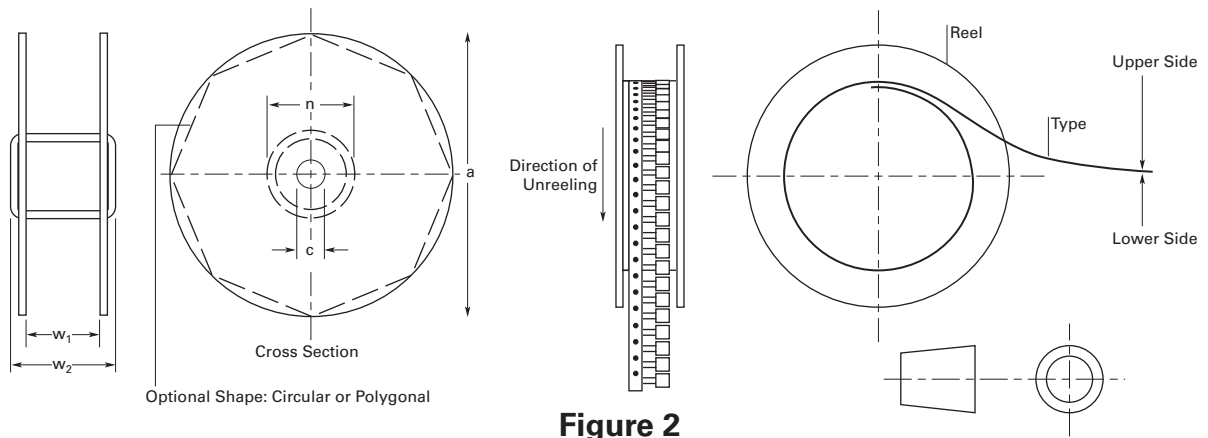
Description	EIA Mark	Dimension (mm)	Tolerance
Carrier Tape Width	W	18	-0.5/+1.0
Hold-Down Tape Width	W <sub>4</sub>	11	Minimum
Top Distance between Tape Edges	W <sub>6</sub>	3	Maximum
Sprocket Hole Position	W <sub>5</sub>	9	-0.5/+0.75
Sprocket Hole Diameter	D <sub>0</sub>	4	± 0.2
Abscissa to Plane (Straight Lead) (RXEF110 To RXEF300)	H	18.5	± 2.5
Abscissa to Plane (Kinked Lead) (RXEF010 To RXEF090)	H <sub>0</sub>	16.0	± 0.5
Abscissa to Top (RXEF010 To RXEF090)	H <sub>1</sub>	32.2	Maximum
Abscissa to Top* (RXEF110 To RXEF300)	H <sub>1</sub>	47.5	Maximum
Overall Width with Lead Protrusion (RXEF010 To RXEF090)	C <sub>1</sub>	43.2	Maximum
Overall Width with Lead Protrusion* (RXEF110 To RXEF300)	C <sub>1</sub>	58	Maximum
Overall Width without Lead Protrusion (RXEF010 To RXEF090)	C <sub>2</sub>	42.5	Maximum
Overall Width without Lead Protrusion* (RXEF110 To RXEF300)	C <sub>2</sub>	57.0	Maximum
Lead Protrusion	L <sub>1</sub>	1.0	Maximum
Protrusion of Cut-Out	L	11.0	Maximum
Protrusion beyond Hold-down Tape	I <sub>2</sub>	Not Specified	—
Sprocket Hole Pitch	P <sub>0</sub>	12.7	± 0.3
Device Pitch (RXEF010 To RXEF090)	—	12.7	± 0.3
Device Pitch (RXEF110 To RXEF300)	—	25.4	± 0.61
Pitch Tolerance	—	20 Consecutive	± 1
Tape Thickness	T	0.9	Maximum
Overall Tape and Lead Thickness (RXEF010 To RXEF090)	T <sub>1</sub>	1.5	Maximum
Overall Tape and Lead Thickness (RXEF110 To RXEF300)	T <sub>1</sub>	2.3	Maximum
Splice Sprocket Hole Alignment	—	0	± 0.3
Body Lateral Deviation	Δh	0	± 1.0
Body Tape Plane Deviation	Δp	0	± 1.3
Ordinate to Adjacent Component Lead (RXEF010 To RXEF185)	P <sub>1</sub>	3.81	± 0.7
Ordinate to Adjacent Component Lead (RXEF250 To RXEF300)	P <sub>1</sub>	7.62	± 0.7
Lead Spacing* (RXEF010 To RXEF185)	F	5.05	± 0.75
Lead Spacing* (RXEF250 To RXEF300)	F	10.15	± 0.75
Reel Width (RXEF010 To RXEF090)	W <sub>2</sub>	56.0	Maximum
Reel Width* (RXEF110 To RXEF300)	W <sub>2</sub>	63.5	Maximum
Reel Diameter	A	370.0	Maximum
Space between Flanges* (RXEF010 To RXEF090)	W <sub>1</sub>	48.0	Maximum
Space between Flanges* (RXEF110 To RXEF300)	W <sub>1</sub>	55.0	Maximum
Arbor Hold Diameter	C	26.0	± 12.0
Core Diameter*	N	91.0	Maximum
Box	—	64/372/362	Maximum
Consecutive Missing Places	—	None	—
Empty Places per Reel	—	0.1%	Maximum

\*Differs from EIA specification.

**Tape and Reel Diagrams**



**Figure 1**



**Figure 2**

**WARNING**

- Users should independently evaluate the suitability of and test each product selected for their own application.
- Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- These devices are intended for protection against damage caused by occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Contamination of the PPTC material with certain silicone-based oils or some aggressive solvents can adversely impact the performance of the devices.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- PPTC devices are not recommended for installation in applications where the device is constrained such that its PTC properties are inhibited, for example in rigid potting materials or in rigid housings, which lack adequate clearance to accommodate device expansion.
- Operation in circuits with a large inductance can generate a circuit voltage ( $Ldi/dt$ ) above the rated voltage of the device.

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