



### Surface Mount Ultra Low IR Schottky Barrier Rectifier

Voltage 150 V Current 5 A

#### **Features**

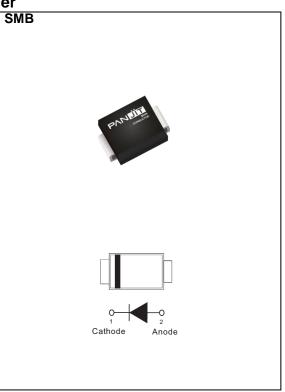
- Low leakage current
- Ideal for automated placement
- Low power loss, high efficiency
- High surge current capability
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **Mechanical Data**

• Case: SMB Package

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.092 grams



## Maximum Ratings and Thermal Characteristics ( $T_A = 25$ $^{\circ}$ C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS	
Maximum Repetitive Peak Reverse Voltage		$V_{RRM}$	150	V
Maximum RMS Voltage		V <sub>RMS</sub>	105	V
Maximum DC Blocking Voltage		$V_{DC}$	150	V
Maximum Average Forward Current		I <sub>F(AV)</sub>	5	Α
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load		IFSM	150	А
Typical Junction Capacitance  Measured at 1 MHZ And Applied $V_R = 4 \text{ V}$		Сл	130	pF
Typical Thermal Resistance	(Note 1)	RθJA	135	
	(Note 2)	Rejc	18	°C/W
	(Note 2)	ReJL	26	
Operating Junction Temperature Range		TJ	-55~175	°C
Storage Temperature Range		T <sub>STG</sub>	-55~175	°C





### **Electrical Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C	ı	0.68	ı	V
		I <sub>F</sub> = 3 A, T <sub>J</sub> = 25 °C	ı	0.76	ı	V
		I <sub>F</sub> = 5 A, T <sub>J</sub> = 25 °C	-	-	0.85	V
		I <sub>F</sub> = 1 A, T <sub>J</sub> = 125 °C	-	0.54	-	V
		I <sub>F</sub> = 3 A, T <sub>J</sub> = 125 °C	-	0.63	-	V
		I <sub>F</sub> = 5 A, T <sub>J</sub> = 125 °C	-	0.67	-	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 120 V, T <sub>J</sub> = 25 °C	ı	16	-	nA
		V <sub>R</sub> = 150 V, T <sub>J</sub> = 25 °C	-	-	0.5	uA
		V <sub>R</sub> = 150 V, T <sub>J</sub> = 125 °C	-	-	1	mA

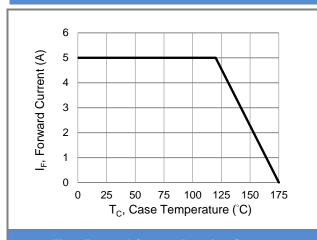
#### NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
- 2. Mounted on a FR4 PCB, single-sided copper, with 100 cm<sup>2</sup> copper pad area.





#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

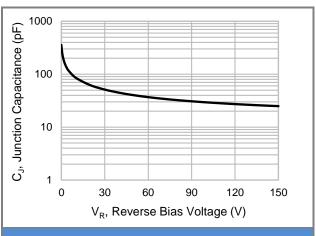


Fig.2 Typical Junction Capacitance

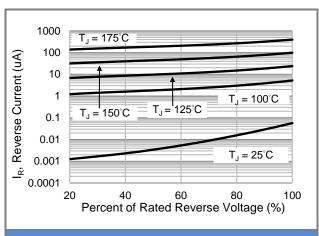


Fig.3 Typical Reverse Characteristics

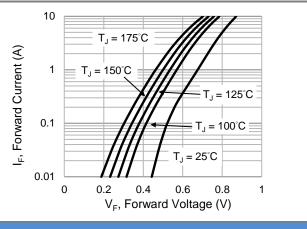


Fig.4 Typical Forward Characteristics

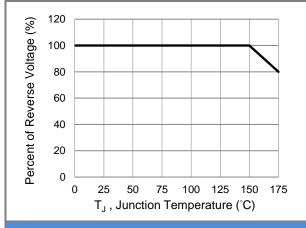


Fig.5 Operating Temperature Derating Curve

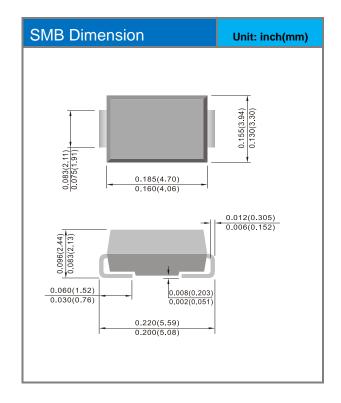


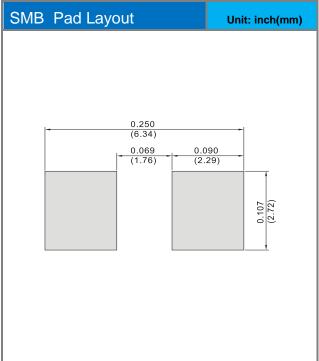


### Part No. Packing Code Version

Part No.	Package Type	Packing Type	Marking	Version
SR5H15-AU	SMB	3K pcs / 13" reel	SR5H15	Halogen free RoHS compliant

### **Packaging Information & Mounting Pad Layout**









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