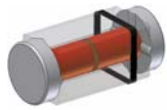


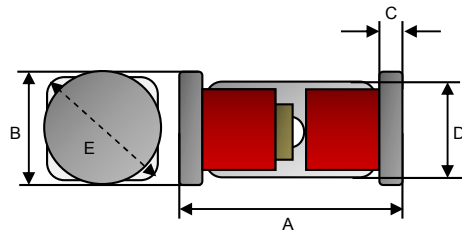
Small Signal Diode



QUADRO Mini-MELF (LS34)
HERMETICALLY SEALED GLASS

Features

- ✧Fast switching device($T_{rr}<4.0nS$)
- ✧Surface device type mounting
- ✧Moisture sensitivity level 1
- ✧Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ✧Pb free version and RoHS compliant
- ✧All External Surfaces are Corrosion Resistant and Leads are Readily Solderable



Mechanical Data

- ✧Case : QUADRO Mini-MELF Package (JEDEC DO-213)
- ✧High temperature soldering guaranteed : 270 °C/10s
- ✧Polarity : Indicated by cathode band
- ✧Weight : 29 ± 2.5 mg

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.25	0.40	0.010	0.016
D	1.25	1.40	0.049	0.055
E	1.80		0.071	

Ordering Information

Part No.	Package	Packing
LSxxxx L1	QUADRO Mini-MELF	2.5Kpcs / 7" Reel
LSxxxx L0	QUADRO Mini-MELF	10Kpcs / 13" Reel

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P_D	500	mW
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Peak Forward Surge Current	I_{FSM}	2	A
Non-Repetitive Peak Forward Current	I_{FM}	450	mA
Mean Forward Current	I_O	150	mA
Thermal Resistance (Junction to Ambient) (Note 1)	$R\theta_{JA}$	300	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to + 200	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units	
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	100	-	V
		$I_R=5\mu A$	75	-	
Forward Voltage	V_F	LS4448, LS914B $I_F=5.0mA$	0.62	0.72	V
		LS4148 $I_F=10.0mA$	-	1.0	
		LS4448, LS914B $I_F=100.0mA$	-	1.0	
Reverse Leakage Current	I_R	$V_R=20V$	-	25	nA
		$V_R=75V$	-	5.0	μA
Junction Capacitance	C_J	-	4.0	pF	
Reverse Recovery Time (Note 2)	T_{rr}	-	4.0	ns	

Notes:1. Valid provided that electrodes are kept at ambient temperature

Notes:2. Reverse Recovery Test Conditions: $I_F=I_R=10mA$, $R_L=100\Omega$, $I_{RR}=1mA$

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

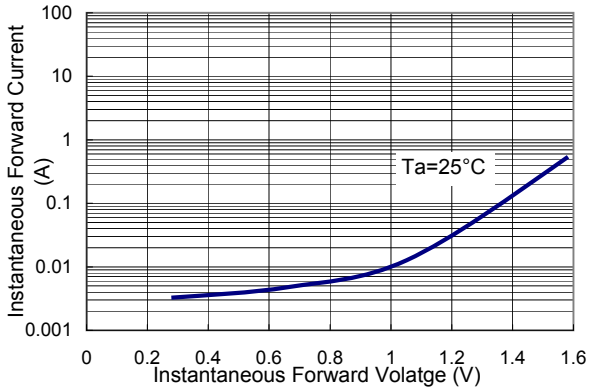


FIG 2 Reverse Current vs Reverse Voltage

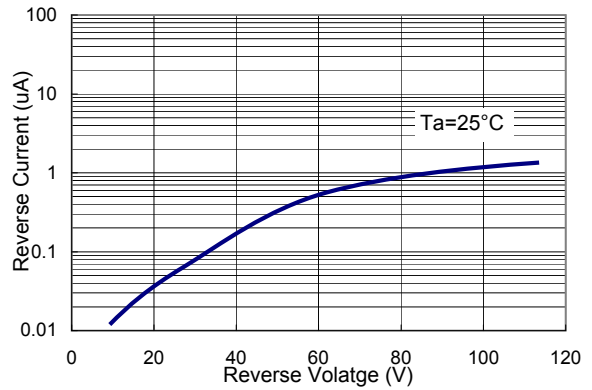


FIG 3 Admissible Power Dissipation Curve

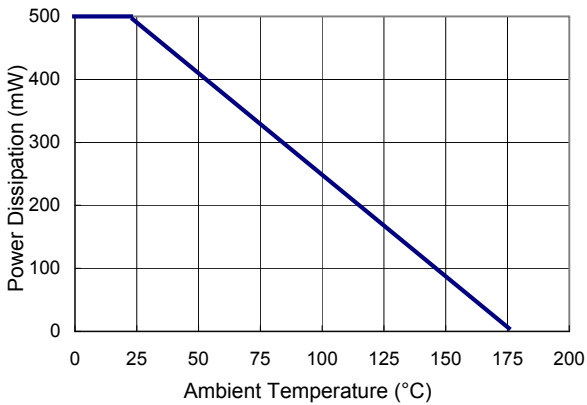


FIG 4 Typical Junction Capacitance

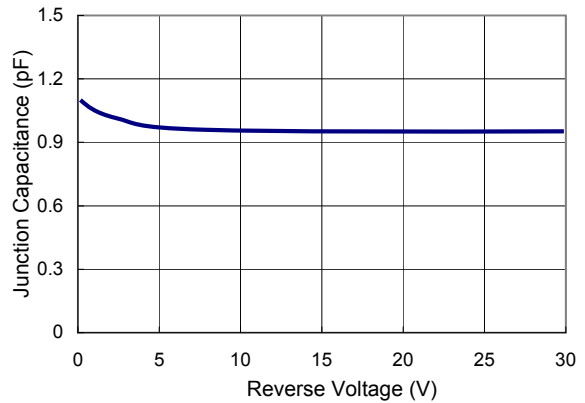


FIG 5 Forward Resistance vs. Forward Current

