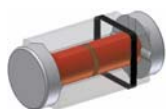


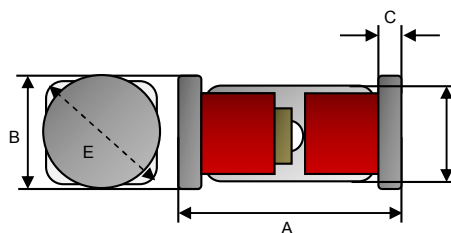
### Small Signal Diode



**QUADRO Mini-MELF (LS34)**  
**HERMETICALLY SEALED GLASS**

#### Features

- ✧ Fast switching device ( $T_{rr} < 4.0\text{nS}$ )
- ✧ 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 $I_F=5.0\text{mA}$	0.62	0.72	V
		LS4148 $I_F=10.0\text{mA}$	-	1.0	
		LS4448, LS914B $I_F=100.0\text{mA}$	-	1.0	
Reverse Leakage Current	$I_R$	$V_R=20\text{V}$	-	25	nA
		$V_R=75\text{V}$	-	5.0	$\mu A$
Junction Capacitance	$C_J$	-	4.0	pF	
Reverse Recovery Time (Note 2)	$T_{rr}$	-	4.0	ns	

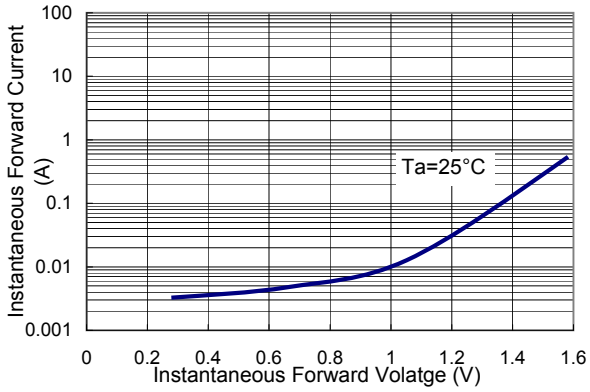
Notes:1. Valid provided that electrodes are kept at ambient temperature

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

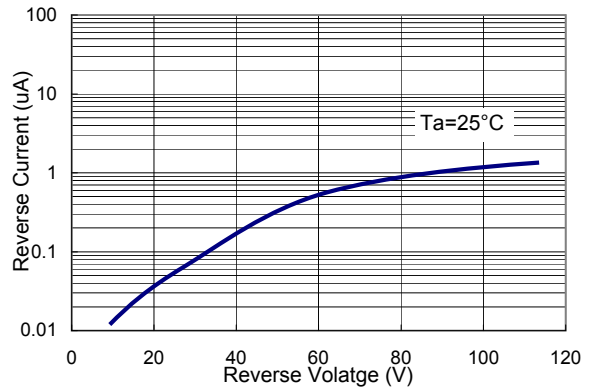
**Small Signal Diode**

**Rating and Sharacteristic Curves**

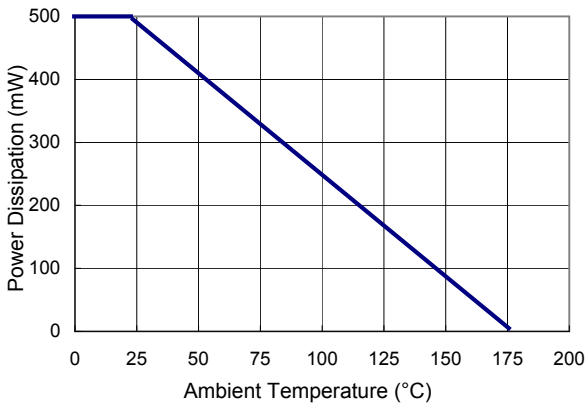
**FIG 1 Typical Forward Characteristics**



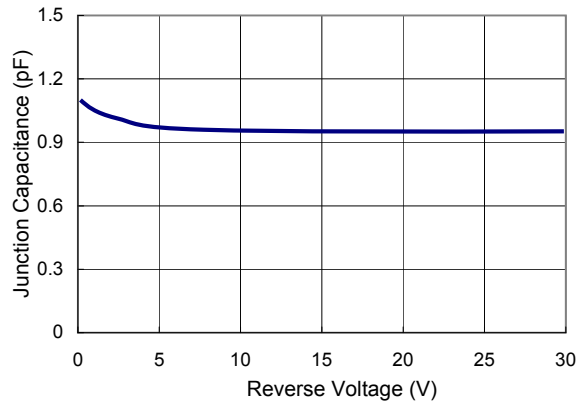
**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



**FIG 5 Forward Resistance vs. Forward Current**

