



Reverse Voltage:40Volts

Forward Current:0.35Amps

MINI-MELF

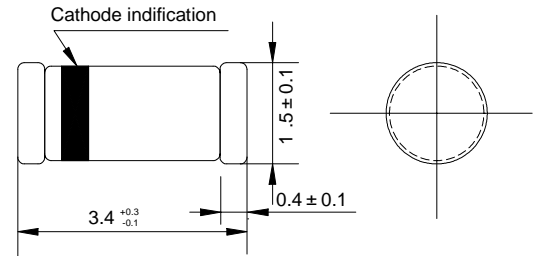


Features

For general purpose applications

These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.

These diodes are also available in the DO-35 case with type designations BAT48 and in the SOD-123 case with type designations BAT48W8



Dimensions in millimeters

Mechanical Data

Case: MINI-MELF, glass case

Polarity: Color band denotes cathode

Weight: 0.031 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

MAXIMUM RATINGS

		LL48	UNITS
Peak reverse voltage	V_{RRM}	40	V
Forward continuous current	I_F	350 ¹⁾	mA
Surge forward current at $t_p=10$ ms	I_{FSM}	7.5 ¹⁾	A
Power dissipation	P_{tot}	330 ¹⁾	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	0.3 ¹⁾	/W
Junction temperature	T_j	125	
Storage temperature range	T_{STG}	-55 --- + 150	

¹⁾Valid provided that electrodes are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

		MIN	TYP	MAX	UNITS
Reverse breakdown voltage at $I_R=100\mu A$	$V_{(BR)}$	40	-	-	V
Leakage current pulse test $t_p=300\mu s, \delta < 2\%$ @ $V_R=10V$ @ $V_R=10V, T_J=60$ @ $V_R=20V$ @ $V_R=20V, T_J=60$ @ $V_R=40V$ @ $V_R=40V, T_J=60$	I_R	- - - - - -	- - - - - -	2 15 5 25 25 50	μA
Forward voltage pulse test $t_p < 300\mu s, \delta < 2\%$ @ $I_F=0.1mA$ @ $I_F=10mA$ @ $I_F=250mA$	V_F	- - -	- - -	0.25 0.45 0.90	V
Capacitance at $V_R=1V$ $f=1MHz$	C_{tot}	-	12	-	pF

Ratings AND Characteristic Curves

Figure 1. Forward current versus forward voltage at different temperatures (typical values)

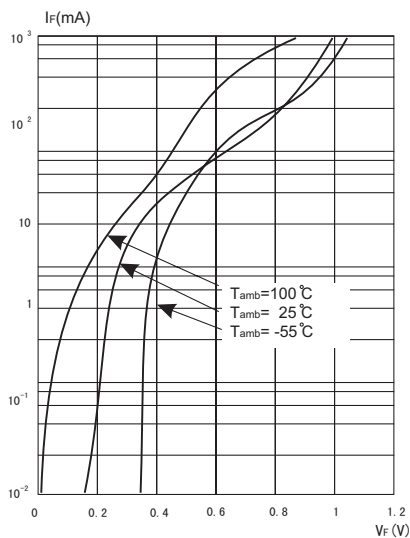
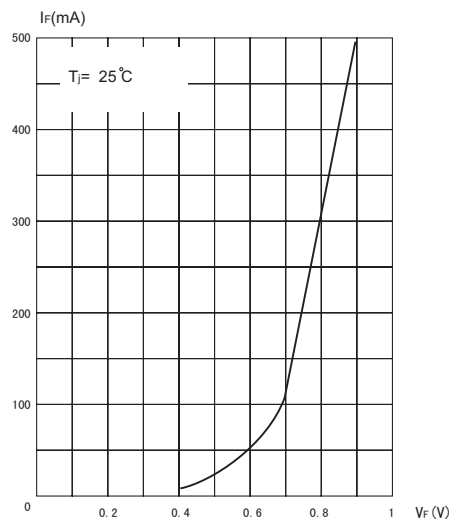


Figure 2. Forward current versus forward voltage (typical values)





Ratings AND Characteristic Curves

Figure 3. Reverse current versus ambient temperatures

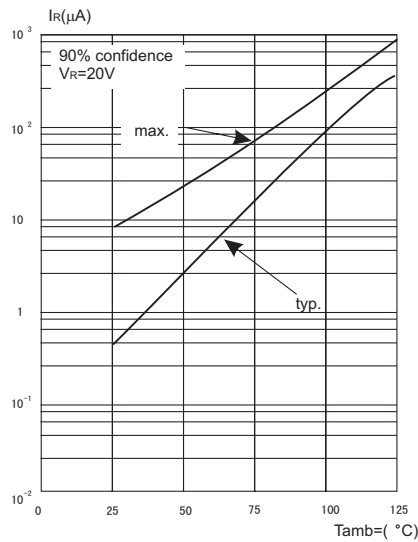


Figure 4. Reverse current versus continuous Reverse voltage (typical values)

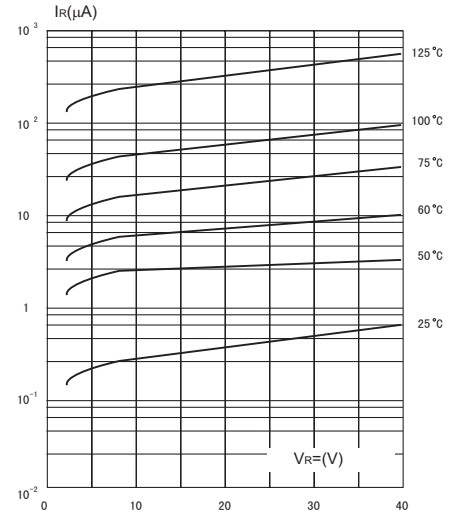
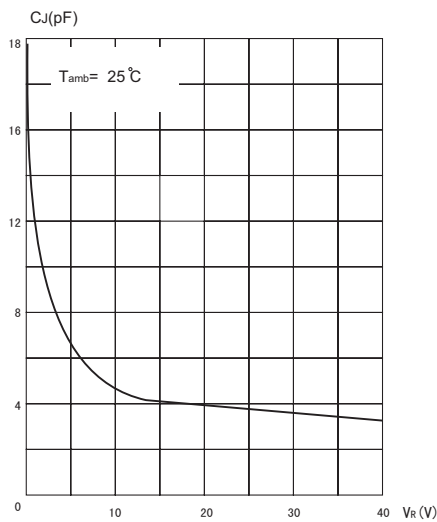


Figure 5. Capacitance CJ versus reverse applied voltage VR (typical values)



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
minimelf	2500pcs	7inch	20000pcs	186×186×105	120,000pcs	443×215×305