

MBRX0540

Small Surface Mount Schottky Rectifiers

REVERSE VOLTAGE: 40 V

CURRENT: 0.5 A



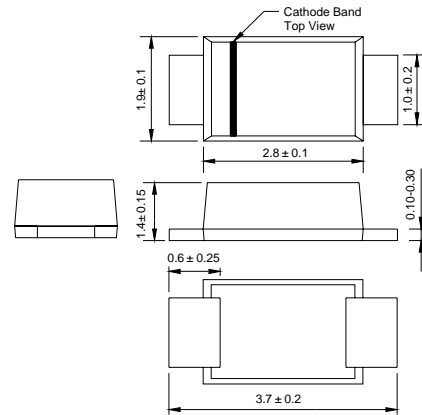
SOD - 123FL

Features

- Low profile package
- For surface mouted applications
- Idear for automated placement
- Low power loss,high efficiency
- High temperature soldering:
250 /10 seconds at terminals

Mechanical Data

- Case:JEDEC SOD-123FL,molded plastic over passivated chip
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram
- Device marking code: B4



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase,half wave,60Hz,resistive or inductive load.For capacive load,derate current by 20%.

ABSOLUTE RATINGS

Parameter	Symbol	Value	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum working peak reverse voltage	V_{RWM}	40	V
Maximum DC blocking voltage	V_R	40	V
Maximum average forward rectified current at rated V_R @ $V_C=115$	$I_{(AV)}$	0.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_L=25$	I_{FSM}	5.5	A
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	206	/W
Typical thermal resistance (NOTE 2)	$R_{\theta JL}$	118	/W
Operating temperature range	T_j	-55---+150	
Storage temperature range	T_{STG}	-55---+150	

NOTES:1. Thermal resistance junction to ambient

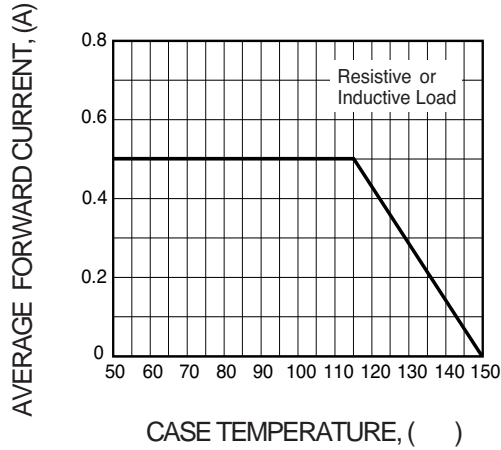
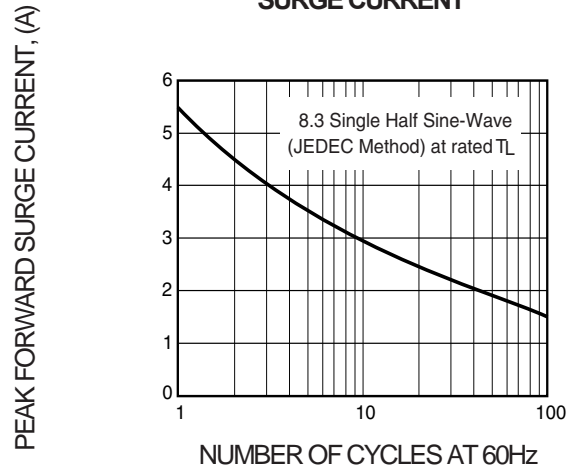
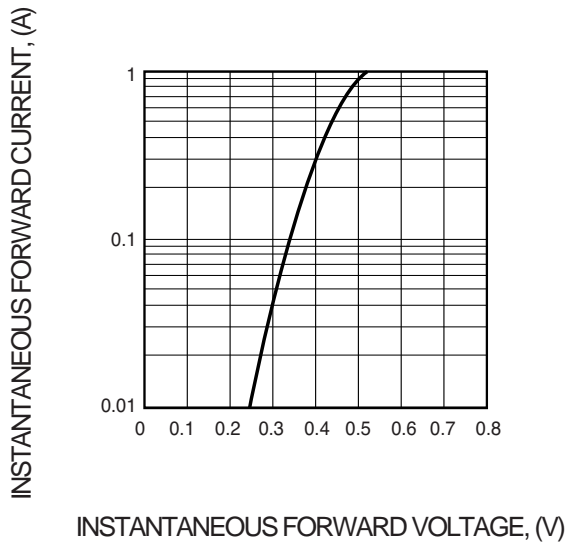
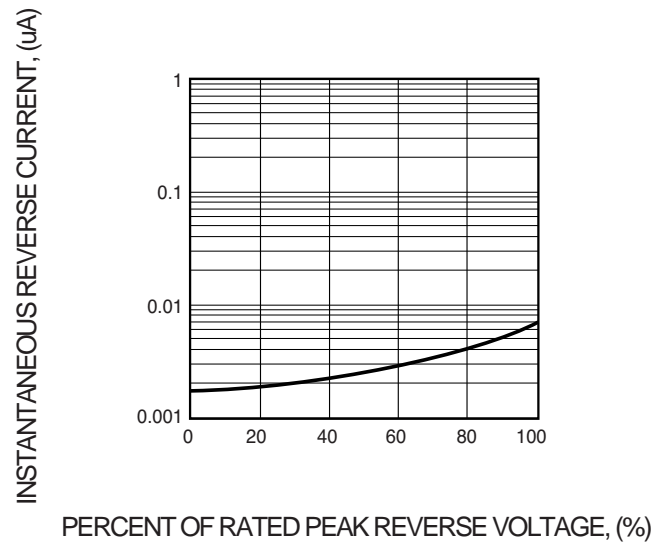
2. Thermal resistance junction to lead

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ.	Max.	Unit	
Maximum instantaneous forward voltage (NOTE 3)	V_F	-	-	@ $I_F=0.5A, T_J=25$	0.51	
				@ $I_F=0.5A, T_J=100$	0.46	
				@ $I_F=1.0A, T_J=25$	0.62	
				@ $I_F=1.0A, T_J=100$	0.61	
Maximum DC reverse current at rated DC blocking voltage	I_R	-	-	@ $V_R=40V, T_J=25$	μA	
				@ $V_R=40V, T_J=100$	5.0	m A
				@ $V_R=20V, T_J=25$	10	μA

 NOTES: 3.Pulse test:300 μs pulse width,1% duty cycle.

Ratings AND Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

FIG. 2 - MAXIMUM NON-REPETTIVE FORWARD SURGE CURRENT

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

FIG. 5 - TYPICAL JUNCTION CAPACITANCE
