

BAT48-60

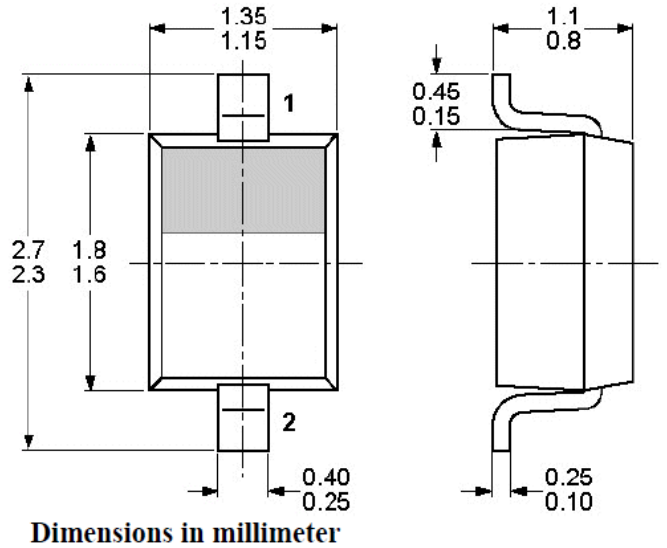
Surface Mount High Current Density Schottky Rectifiers 1.0 Amp 60V

Features

- Guarding protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance
- RoHS compliant package

Mechanical Data

- Case: SOD-323 Molded plastic
- Epoxy: UL94V-O rate flame retardant
- Lead: Lead Formed for Surface Mount
- Polarity: Color band denotes cathode end
- Mounting position: Any



Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	BAT-60	Unit
Maximum repetitive peak reverse voltage	VRRM	60	V
Working peak reverse voltage	VRWM	42	V
Maximum DC blocking voltage	VDC	60	V
Maximum average forward rectified current	IF(AV)	1.0	A
Operating junction temperature range	TJ	-55 to +150	°C
Storage temperature range	TSTG	-55 to +150	°C

Maximum Ratings (Tc=25°C unless otherwise noted)

Parameter	Symbol	BAT-60	Unit
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	10	A
1pulse/4S t=500us exponent wave		60	

Note:

- (1) Mounted on 30 mm x 30 mm Al P.C.B. with 50 mm x 25 mm x 100 mm fin heat sink
- (2) Free air, mounted on recommended copper pad area

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Electrical characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value		Unit
		Typical	Max	
Instantaneous forward voltage at IF=200mA, Tj=25°C	VF	0.37	0.69	V
IF=500mA, Tj=25°C		0.47	0.50	
IF=1.0A, Tj=25°C		0.63	0.69	
IF=200mA, Tj=125°C		0.28	0.31	
IF=500mA, Tj=125°C		0.46	0.49	
IF=1.0A, Tj=125°C		0.62	0.68	
Maximum reverse current per leg at working peak reverse voltage	IR	Tj=25°C	100	u'A
		Tj=100°C	20	m'A

Thermal characteristics (Tc=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Typical thermal resistance	RθJA	88	°C/W
	RθJC	30	°C/W

Notes:

- (1) Pulse test: 300 μs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

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■ RATINGS AND CHARACTERISTIC CURVES

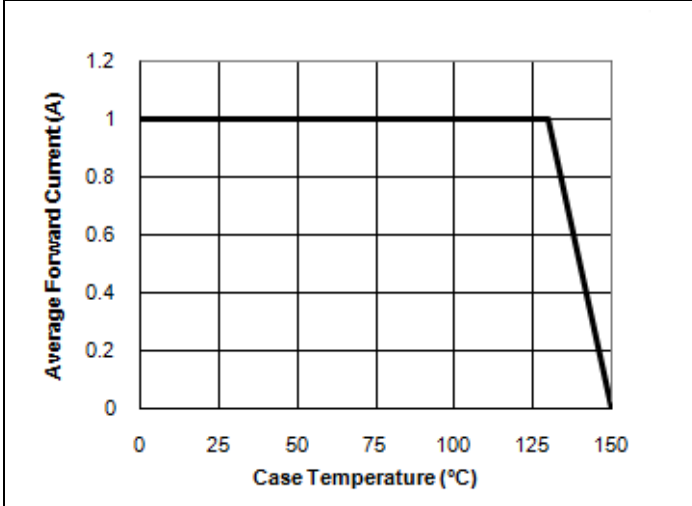


FIG. 1- TYPICAL FORWARD CURRENT DERATING CURVE

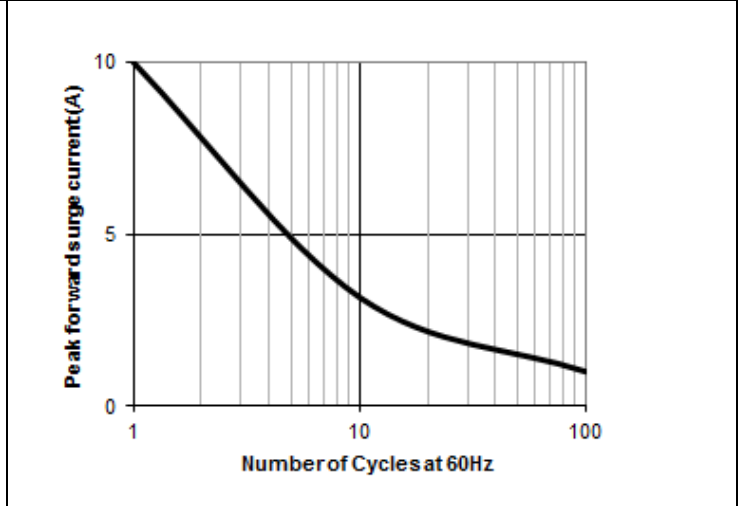


FIG. 2- TYPICAL MAXIMUM NON-REPETITIVE SURGE

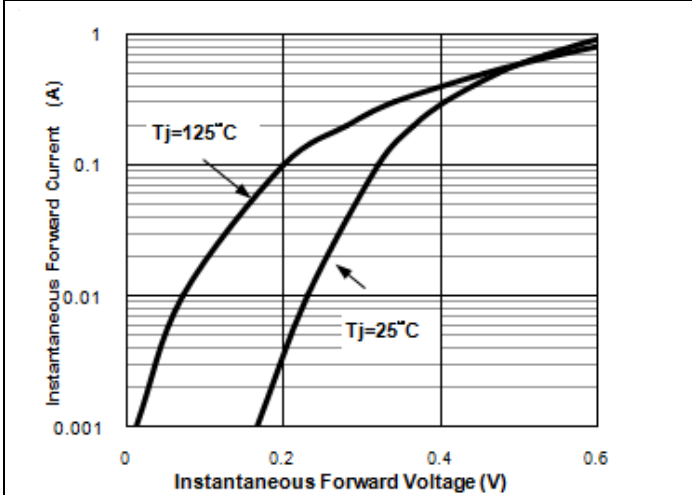


FIG. 3- TYPICAL FORWARD INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

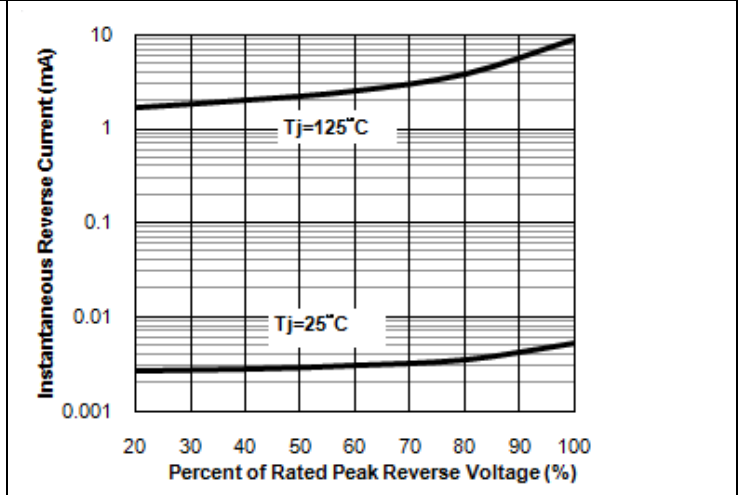


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

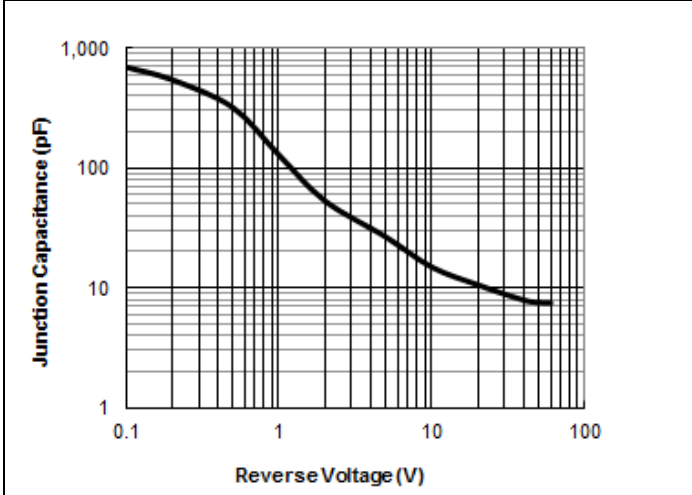


FIG. 5- TYPICAL JUNCTION CAPACITANCE

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