

12.0Amp Surface Mounted Schottky Barrier Rectifiers

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
250°C/10 seconds at terminals
- ◆ AEC-Q101 qualified (Automotive grade with suffix "Q".)

Mechanical Data

Case : Molded plastic body

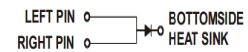
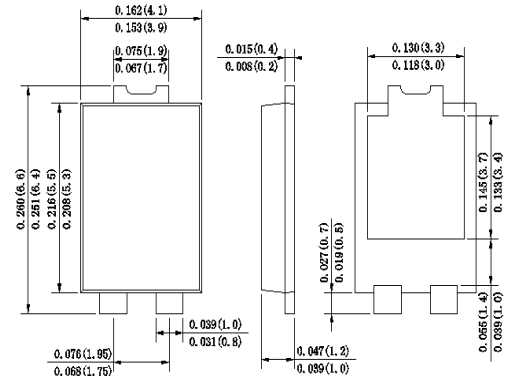
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.003 ounce, 0.092 grams

TO-277B



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	EP1220T	EP1240T	EP1260T	EP1280T	EP12100T	EP12120T	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	120	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	90	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	120	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	12.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	200.0						A
Maximum instantaneous forward voltage at 12.0A	V _F	0.55	0.70	0.85				V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =125°C	I _R	0.5 50			0.05 10			mA
Typical thermal resistance	R _{QJA}	60.0						°C/W
Operating junction temperature range	T _J	-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150						°C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

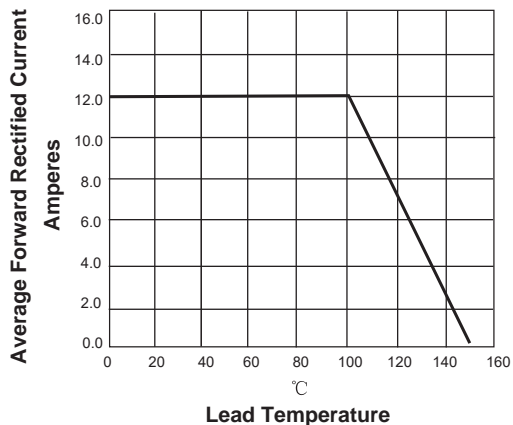


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

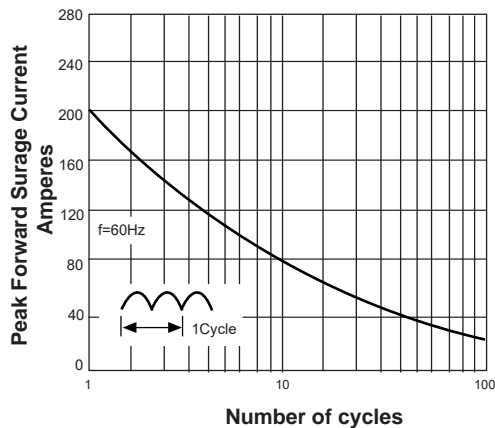


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

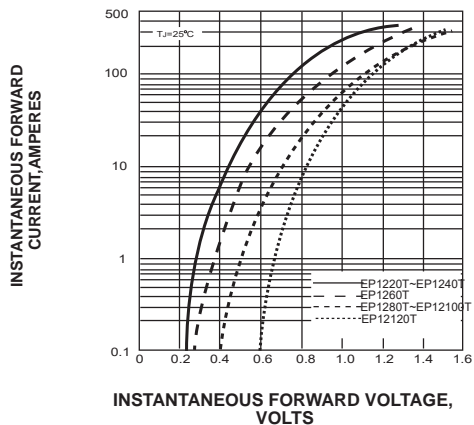
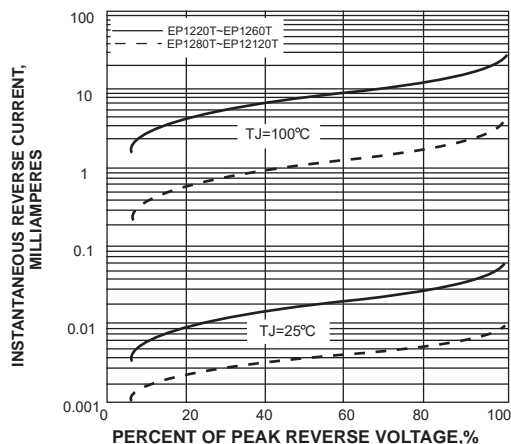
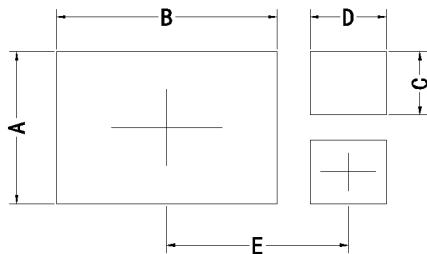


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169