

**Trench Schottky Barrier Rectifiers**

**Reverse Voltage - 50V**

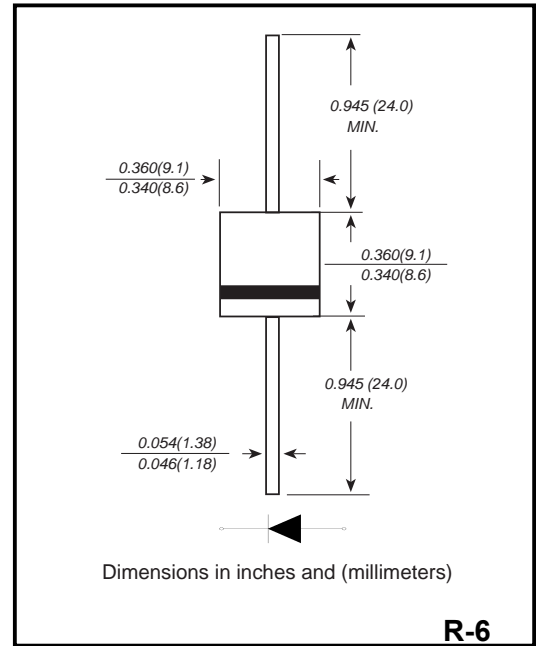
**Forward Current - 30A**

**FEATURES**

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Guardring for overvoltage protection
- ◆Low forward voltage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 260°C/10 seconds at terminals

**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 : 0.072 ounce, 2.05 grams



**Maximum Ratings (Ta=25°C unless otherwise specified)**

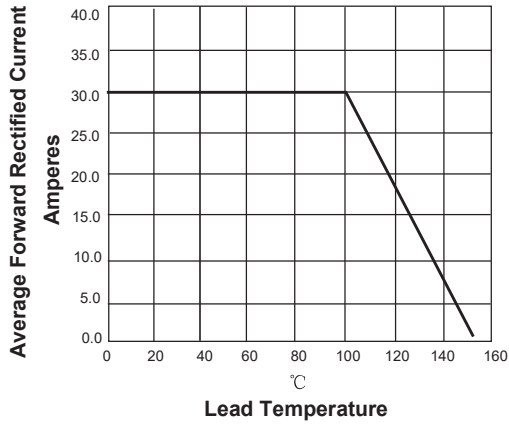
Parameter	Symbols	30SQ050	UNITS
Maximum repetitive peak reverse voltage	<b>V<sub>RRM</sub></b>	50	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	35	<b>V</b>
Maximum DC blocking voltage	<b>V<sub>DC</sub></b>	50	<b>V</b>
Maximum average forward rectified current at T <sub>L</sub> =110°C	<b>I<sub>(AV)</sub></b>	30.0	<b>A</b>
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	<b>I<sub>FSM</sub></b>	400	<b>A</b>
Typical thermal resistance	<b>R<sub>qJA</sub></b> <b>R<sub>qJL</sub></b>	25 10	<b>°C/W</b>
Operating junction temperature range	<b>T<sub>J</sub></b>	-55 to +150	<b>°C</b>
Storage temperature range	<b>T<sub>STG</sub></b>	-55 to +150	<b>°C</b>

**Electrical Characteristics (Ta=25°C unless otherwise specified)**

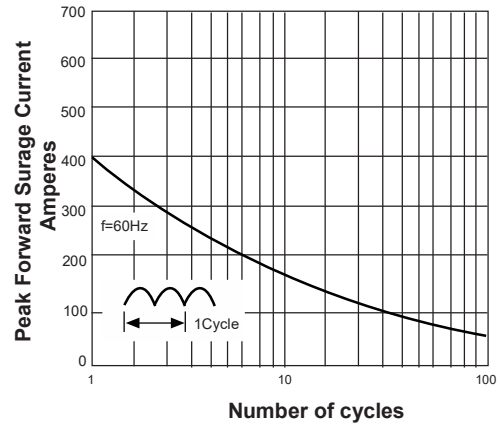
Parameter	Symbols	TYPE	MAX	UNITS
Maximum instantaneous forward voltage at 30.0A	<b>V<sub>F</sub></b>	0.52	0.55	<b>V</b>
Maximum DC reverse current T <sub>A</sub> =25°C	<b>I<sub>R</sub></b>	50	200	<b>uA</b>
Cat rated DC blocking voltage T <sub>A</sub> =100°C		5	20	<b>mA</b>

**Ratings And Characteristic Curves**

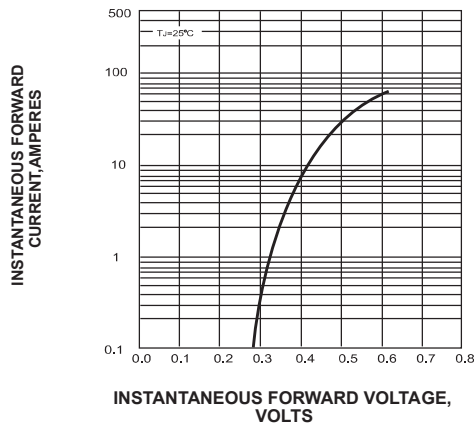
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



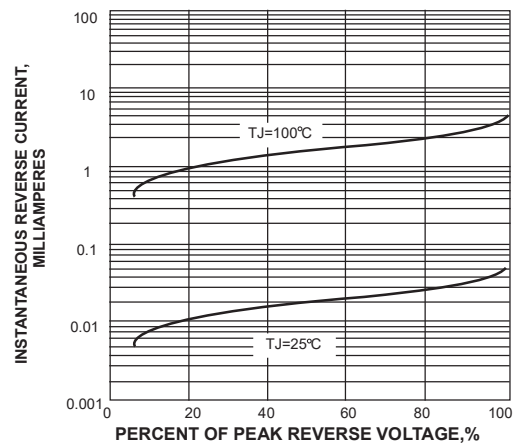
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



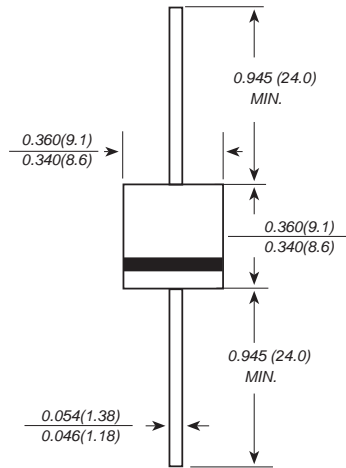
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Package Outline R-6**



**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
R-6	BOX	500	EIA-481-1