

Trench Schottky Barrier Rectifiers

Reverse Voltage - 50V

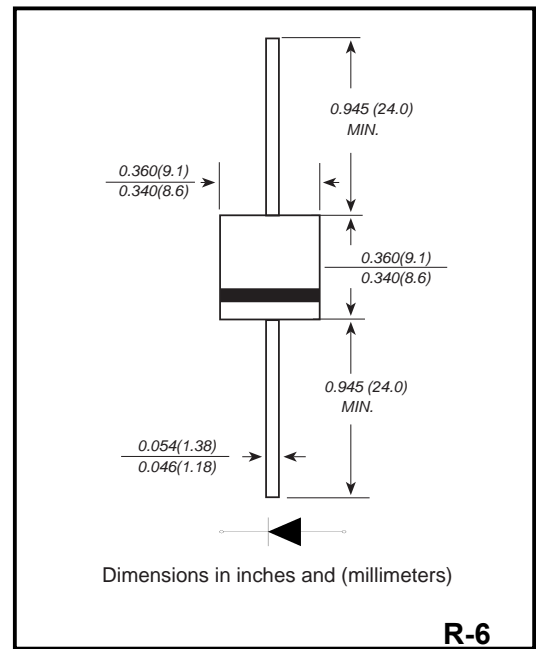
Forward Current - 30A

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	V_{RRM}	50	V
Maximum RMS voltage	V_{RMS}	35	V
Maximum DC blocking voltage	V_{DC}	50	V
Maximum average forward rectified current at T _L =110°C	I_(AV)	30.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	400	A
Typical thermal resistance	R_{qJA} R_{qJL}	25 10	°C/W
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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

Parameter	Symbols	TYPE	MAX	UNITS
Maximum instantaneous forward voltage at 30.0A	V_F	0.52	0.55	V
Maximum DC reverse current T _A =25°C	I_R	50	200	uA
Cat rated DC blocking voltage T _A =100°C		5	20	mA

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

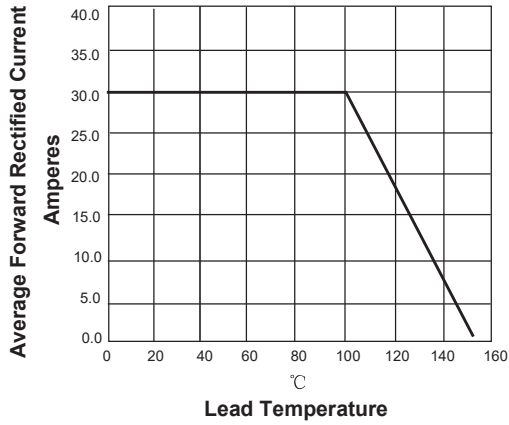


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

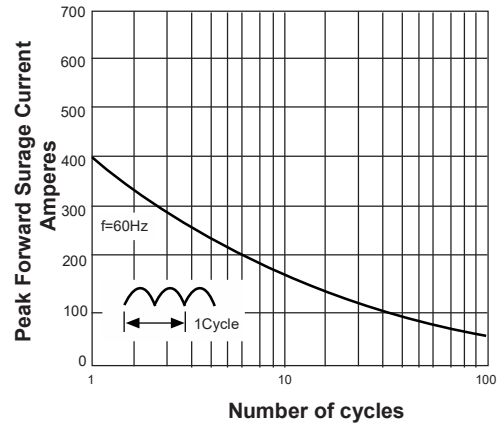


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

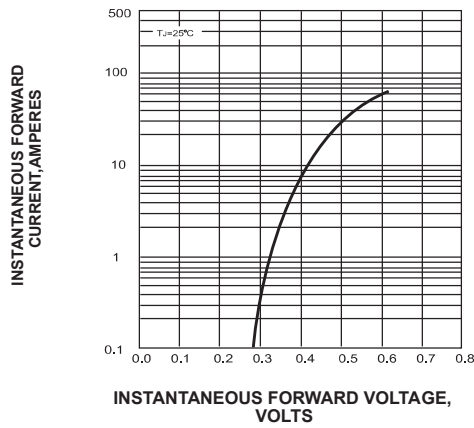
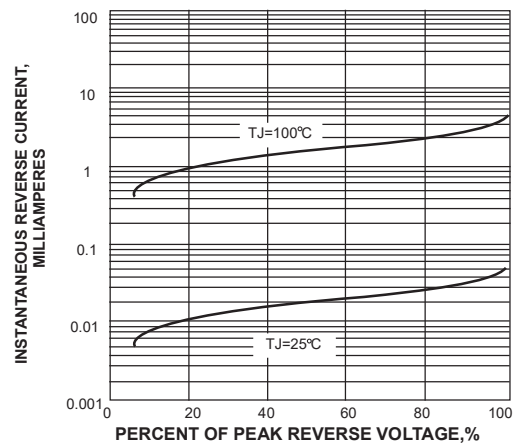
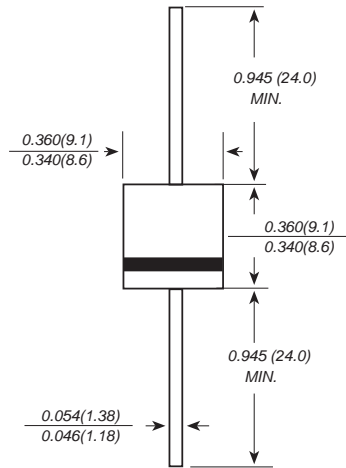


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline R-6



Summary of Packing Options

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