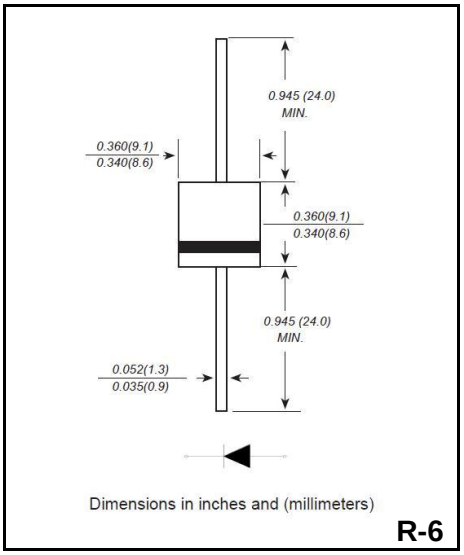
Schottky Barrier Rectifiers

Reverse Voltage - 30 to 100 V
Forward Current - 12 A



FEATURES

- Guardring for overvoltage protection
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
  250℃ /10 seconds at terminals
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: R-6
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 2.05g / 0.072oz

Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	12SQ030	12SQ035	12SQ040	12SQ045	12SQ060	12SQ080	12SQ100	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	35	40	45	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	24.5	28	31.5	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	35	40	45	60	80	100	V
Maximum Average Forward Rectified Current at T_c = 100 °C	$I_{F(AV)}$	12.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	225.0							A
Maximum Instantaneous Forward Voltage at 12A	V_F	0.55				0.70	0.85		V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a=125 °C	I_R	0.5 50					0.05 10		mA
Typical Thermal Resistance	$R_{\theta JA}$	40.0							℃/W
Operating junction temperature range	T_j	-55 ~ +150							℃
Storage Temperature Range	T_{stg}	-55 ~ +150							℃

（1）Measured at 1 MHz and applied reverse voltage of 4 V D.C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

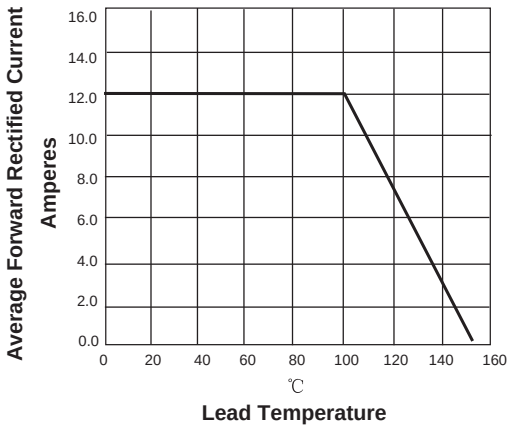


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

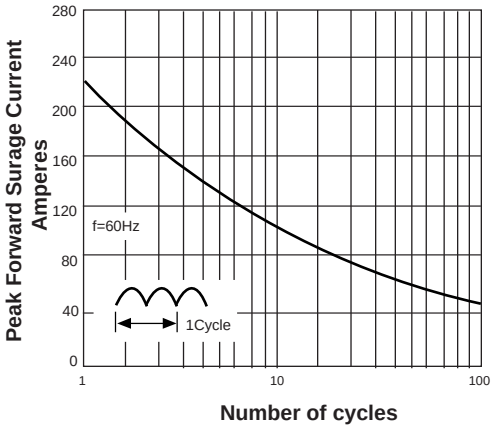


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

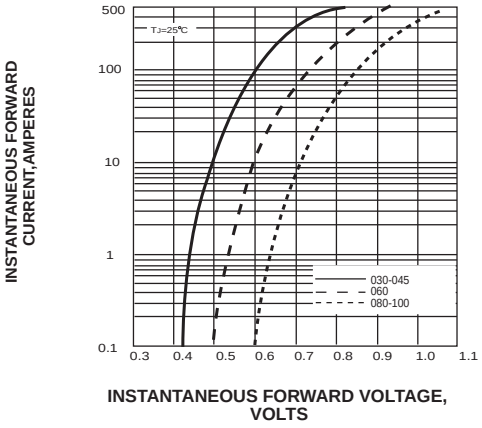
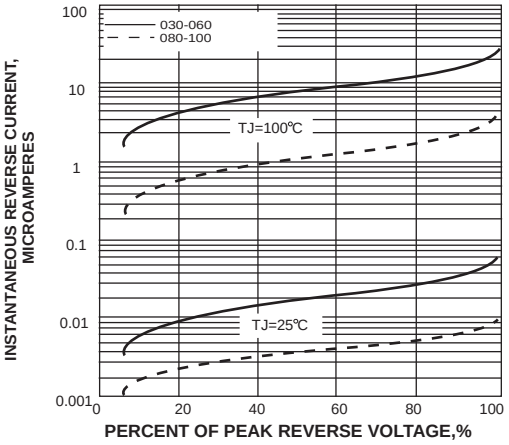
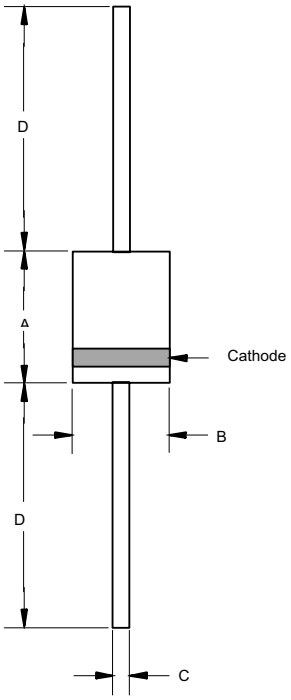


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Outline R-6



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	