

Schottky Barrier Rectifiers

Reverse Voltage - 30 to 100 V

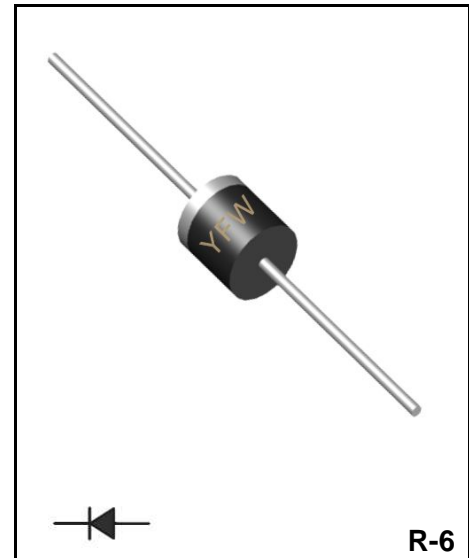
Forward Current - 20 A

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Guardring for overvoltage protection
- ◆ Low reverse leakage
- ◆ 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 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	20SQ030	20SQ035	20SQ040	20SQ045	20SQ060	20SQ080	20SQ100	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	35	40	45	60	80	100	V
Maximum RMS voltage	V_{RMS}	21	24.5	28	31.5	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	60	80	100	V
Maximum Average Forward Rectified Current at $T_L = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	20							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	300							A
Maximum Instantaneous Forward Voltage at 20A	V_F	0.55			0.70	0.85			V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	I_R	0.20 50					0.05 5		mA
Typical Thermal Resistance	$R_{\theta JA}$	40.0							$^\circ\text{C/W}$
Operating junction temperature range	T_j	-55 ~ +150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150							$^\circ\text{C}$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

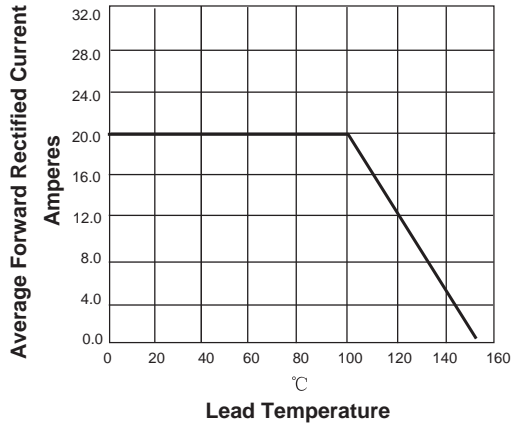


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

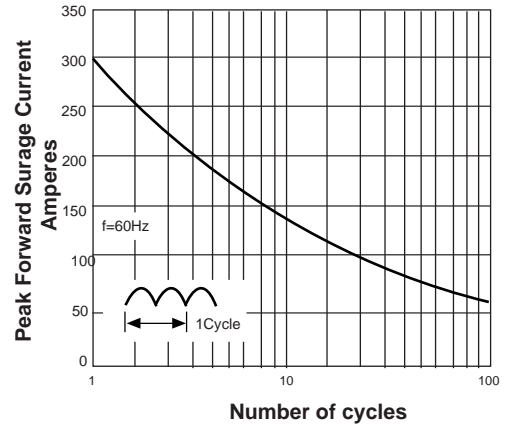


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

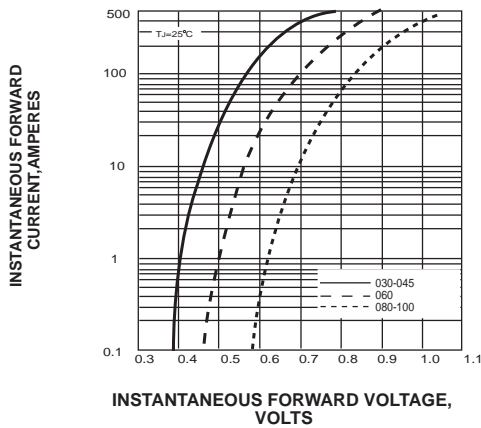
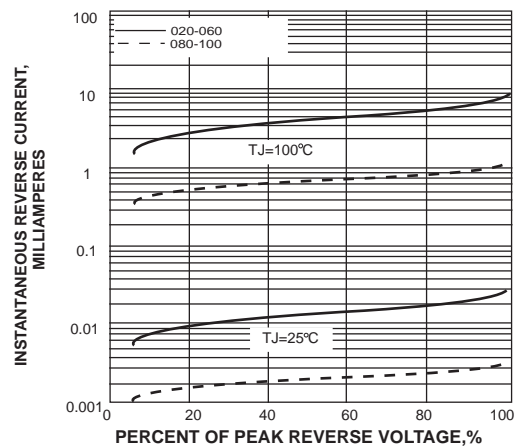


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

Package	Packing Description	Packing Quantity
R-6	ammo pack	500PCS/Inner Box 5000PCS/Carton

Package Dimensions

R-6

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	8.60	9.10	0.340	0.360
B	8.60	9.10	0.340	0.360
C	1.20	1.30	0.048	0.052
D	25.40	-	1.00	-

The diagram shows a side view of the R-6 package. It features a central body with a cathode on one side. Dimension A is the width of the body, B is the width of the leads, C is the thickness of the leads, and D is the length of the leads. Labels include Cathode, Mark, logo, and Model name.

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