

Schottky Barrier Rectifiers

Reverse Voltage - 45V

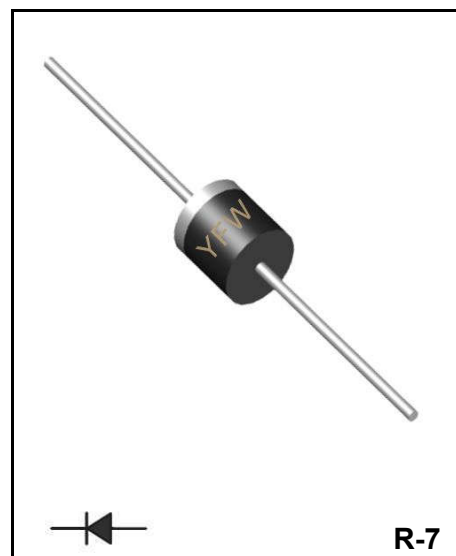
Forward Current - 40A

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



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	40SQ045	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	31.5	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward rectified current	$I_{(AV)}$	40.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	500.0	A
Maximum instantaneous forward voltage at 40.0A	V_F	0.55	V
Maximum DC reverse current at rated DC blocking voltage	I_R	0.2 20	A
Typical thermal resistance	R_{qJC}	2.5	°C/W
Operating junction temperature range	T_J	-55 to +200	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

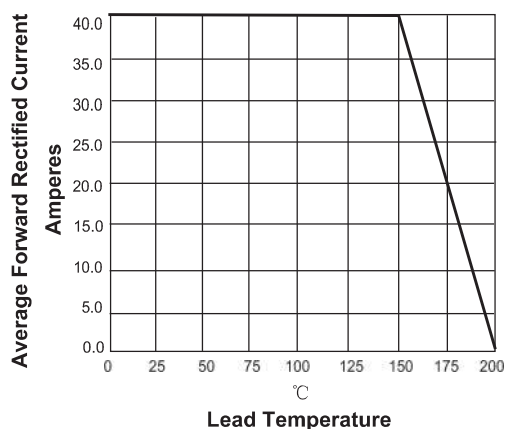


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

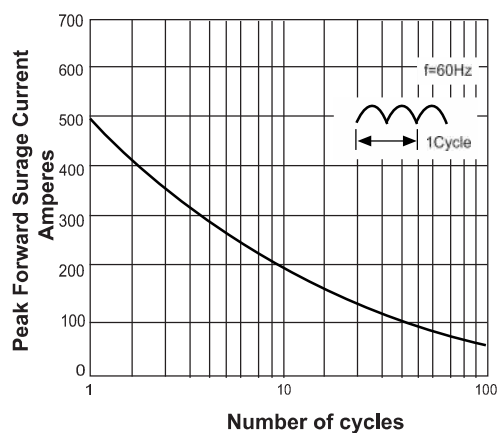


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

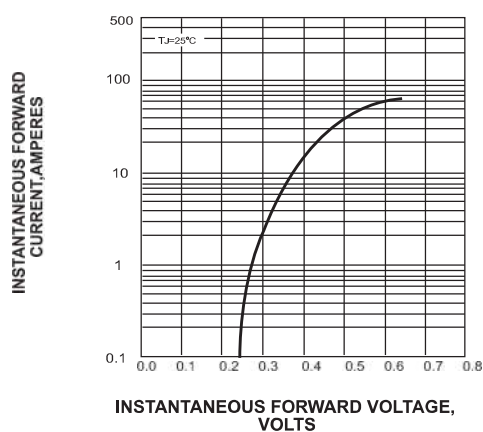
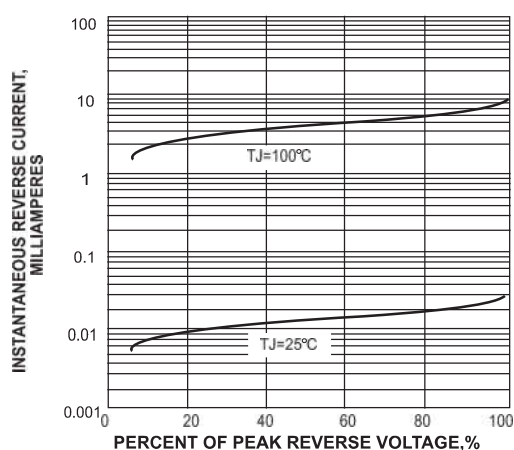


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



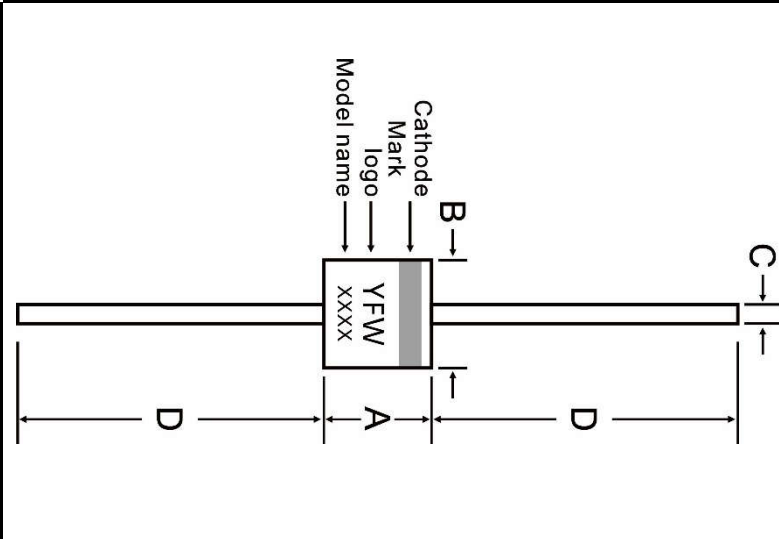
Ordering information

Package	Packing Description	Packing Quantity
R-7	bulk	100PCS/Inner Box 5000PCS/Carton
	ammo pack	500PCS/Box 5000PCS/Carton

Package Dimensions

R-7

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	1.80	2.20	0.070	0.086
D	25.40	-	1.00	-



The diagram illustrates the R-7 package dimensions. It shows a central rectangular body with two long leads extending from it. Dimension A is the width of the central body. Dimension B is the width of the leads. Dimension C is the thickness of the central body. Dimension D is the length of the leads. Labels on the central body include 'Cathode Mark', 'YFW logo', and 'Model name'.

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