

Fast Recovery Rectifiers
Reverse Voltage - 50 to 1000 V
Forward Current - 10 A
Features

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Glass passivated junction chip
- ◆Low profile package
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 260 C/10 seconds at terminals

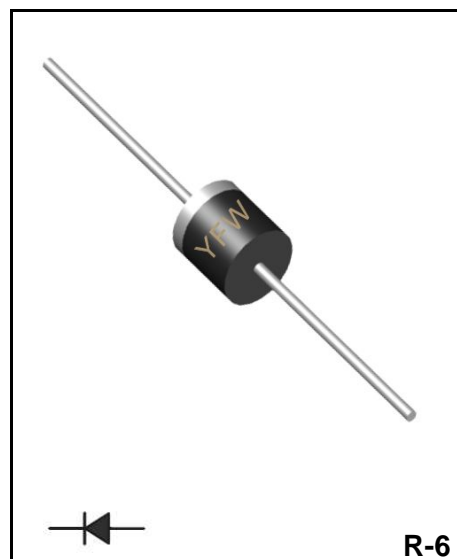
Mechanical Data

- ◆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	FR1001G	FR1002G	FR1003G	FR1004G	FR1005G	FR1006G	FR1007G	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _c = 100 °C	I _{F(AV)}	10.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	350.0							A
Maximum Instantaneous Forward Voltage at 10A	V _F	1.30							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta=125 °C	I _R	2.0 200							μA
Maxinum reverse recovery time(Note 1)	T _{rr}	150				250	500		nS
Typical Junction Capacitance(Note 2)	C _j	120.0							pF
Typical Thermal Resistance	R _{θJA}	40.0							°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C

Note:1,Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

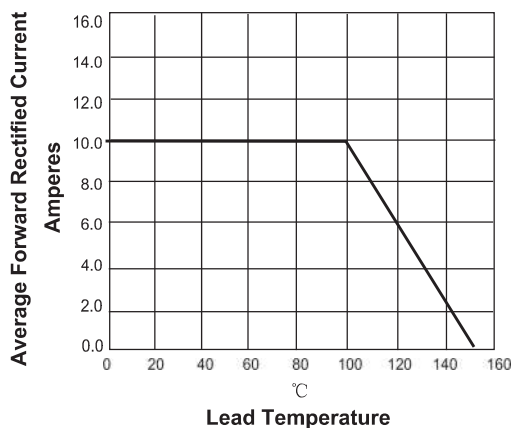


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

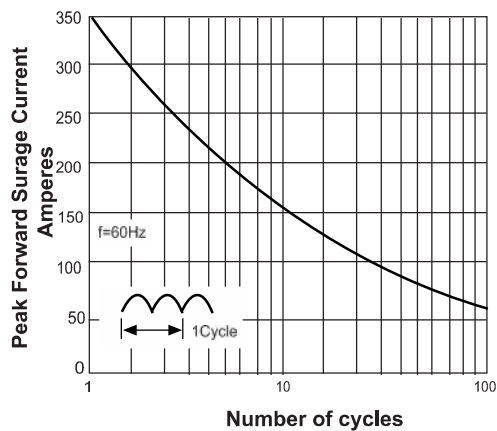


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

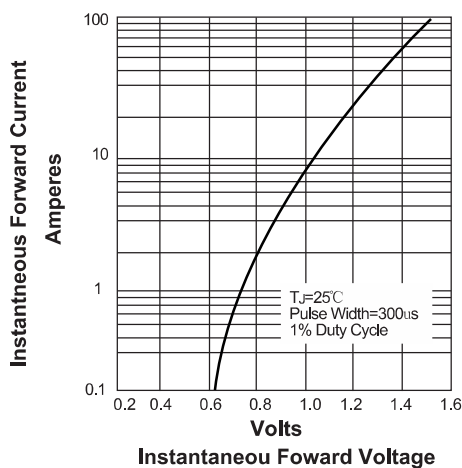
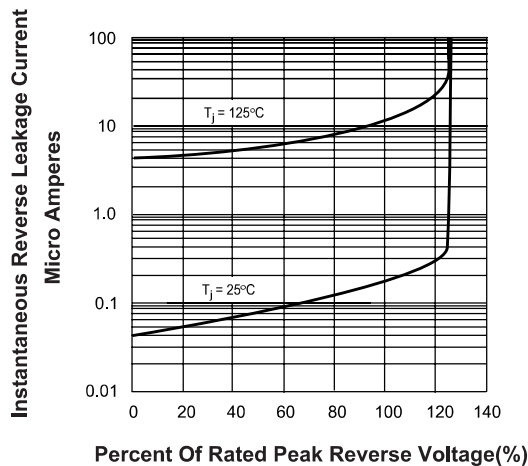


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



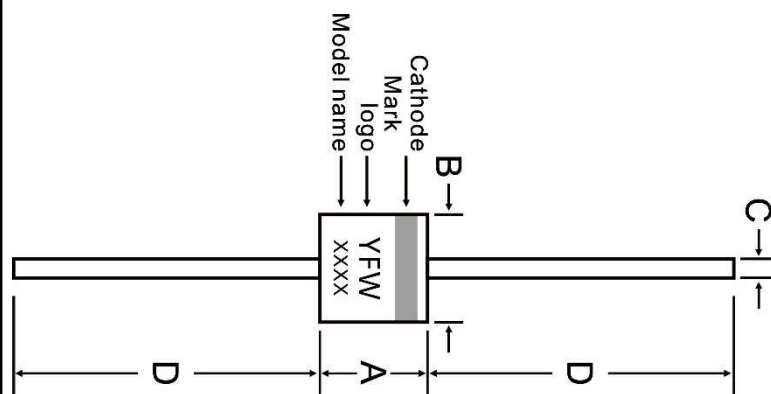
Ordering information

Package	Packing Description	Packing Quantity
R-6	bulk	100PCS/Inner Box 5000PCS/Carton
	ammo pack	500PCS/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	-



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.