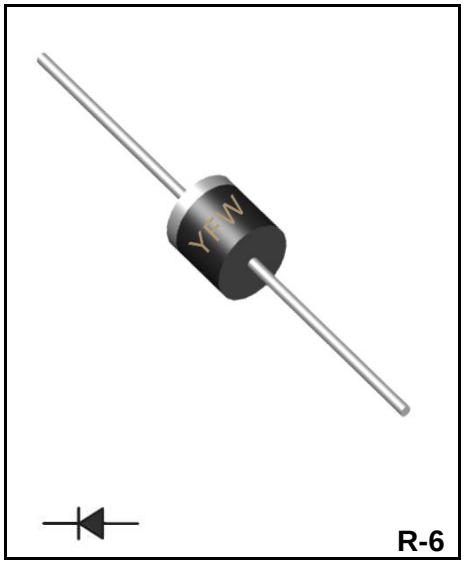
Fast Recovery Rectifiers

Reverse Voltage - 400 V
Forward Current - 20 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-202, Method 208
- 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	FR2004	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current at Tc = 100 °C	$I_{F(AV)}$	20.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	500	A
Maximum Instantaneous Forward Voltage at 20A	V_F	1.0	V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta=125 °C	I_R	5.0 200	μA
Maxinum reverse recovery time(Note 1)	T_{rr}	500	nS
Typical Junction Capacitance(Note 2)	C_j	150	pF
Typical Thermal Resistance	$R_{\theta JA}$	15	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150	°C

Note:1,Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A

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

FIG.1-TYPICAL FORWARD CHARACTERISTIC

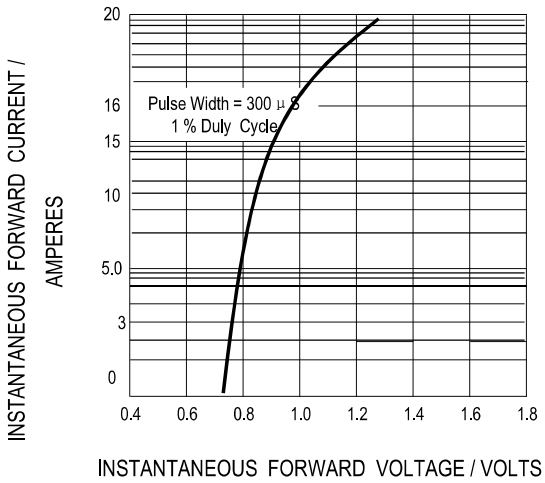


FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

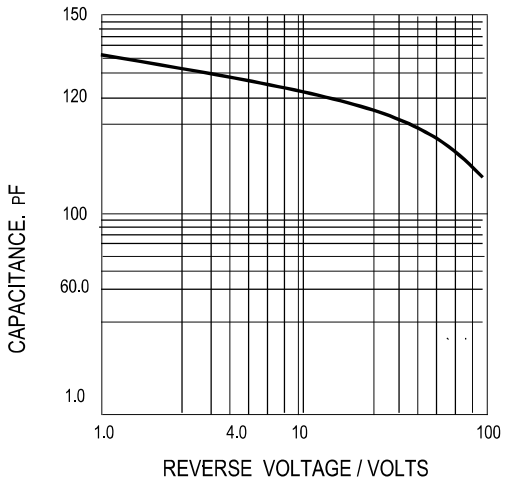


FIG. 3 -- FORWARD CURRENT DERATING CURVE

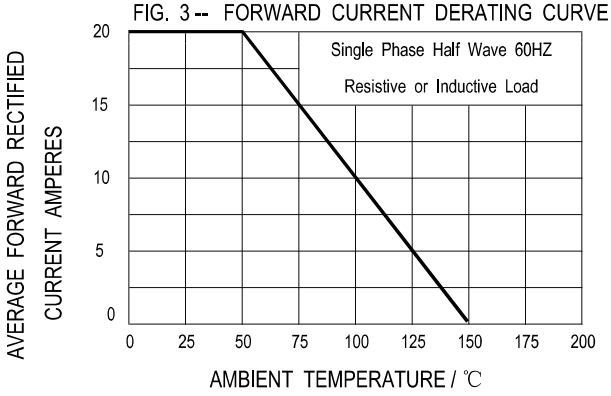


FIG. 4 – PEAK FORWARD SURGE CURRENT

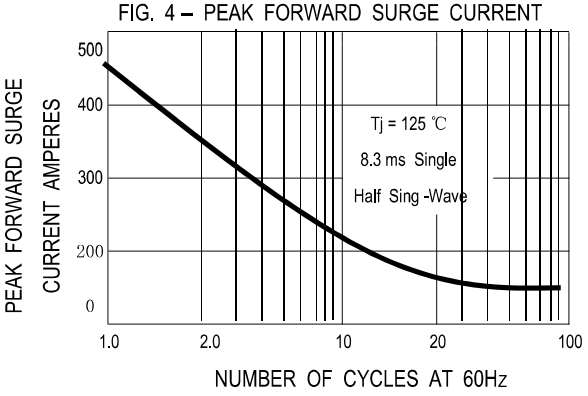
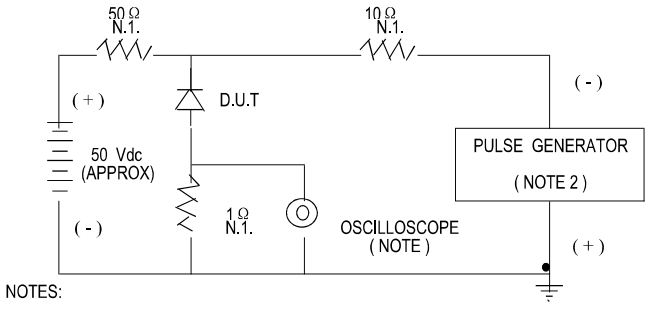
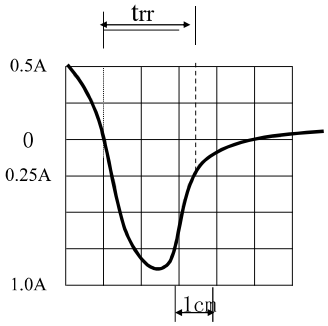


FIG. 5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:

1. RISE TIME = 7n SEC MAX. INPUT IMPEDANCE = 1 MEGOHM. 22PF
2. RISE TIME = 10n SEC MAX. SOURCE IMPEDANCE = 50 OHM.



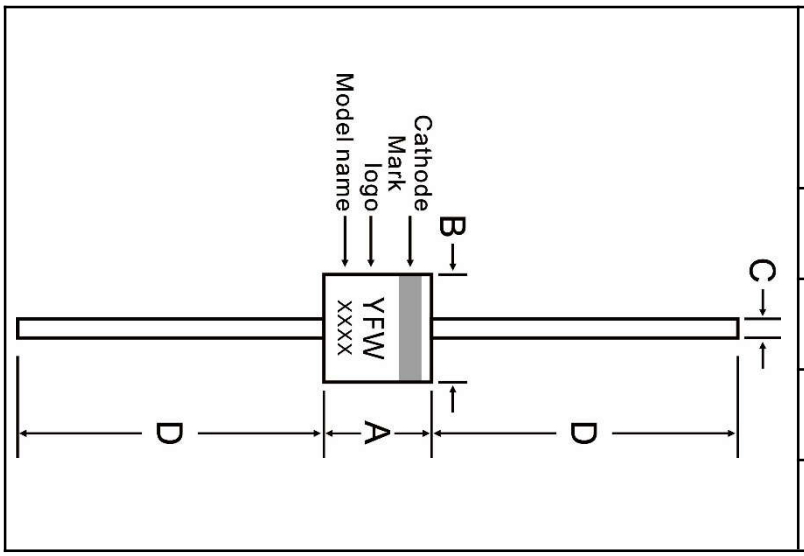
SET TIME BASE FOR 50 / 100 ns / cm

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	-

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