

Super Fast Silicon Rectifiers

Reverse Voltage - 100 to 600 V

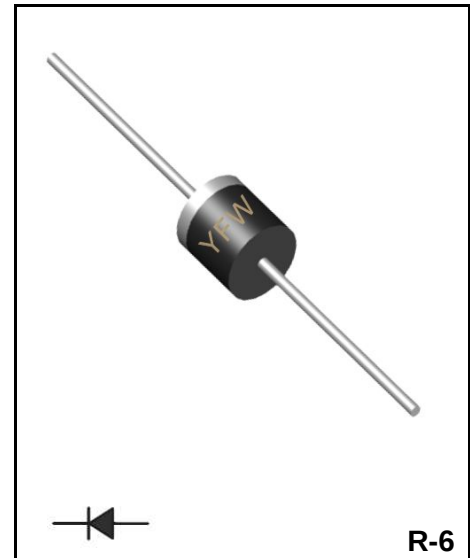
Forward Current - 6 A

FEATURES

- ◆For surface mounted applications
- ◆Low profile package
- ◆Open Junction chip
- ◆Ideal for automated placement
- ◆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	SF62	SF63	SF64	SF66	SF67	SF68	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	150	200	400	500	600	V
Maximum RMS voltage	V_{RMS}	70	105	140	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	100	150	200	400	500	600	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	6.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200.0						A
Maximum Instantaneous Forward Voltage at 6.0A	V_F	0.95			1.25	1.7		V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a=125\text{ }^{\circ}\text{C}$	I_R	10 500						μA
Maxinum reverse recovery time ^(Note 1)	T_{rr}	35						nS
Typical Junction Capacitance ^(Note 2)	C_j	100.0						pF
Typical Thermal Resistance	$R_{\theta JA}$	42.0						$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^{\circ}\text{C}$

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

(2) Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

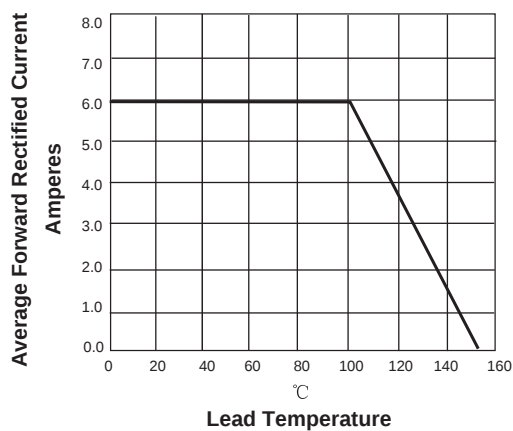


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

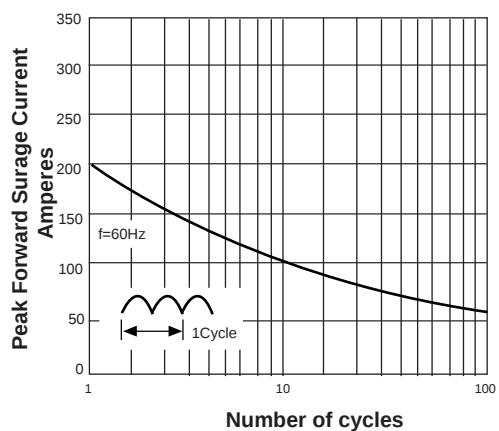


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

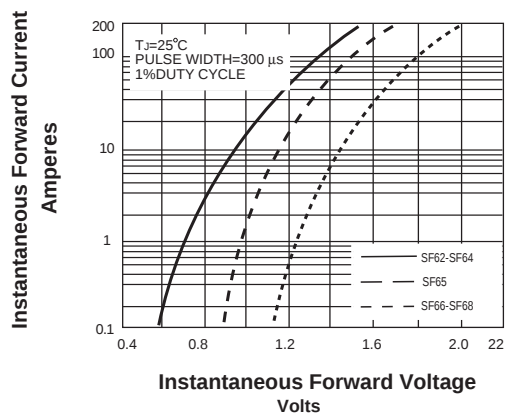
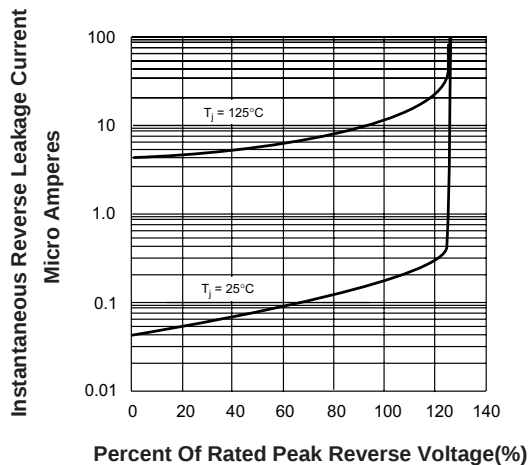


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



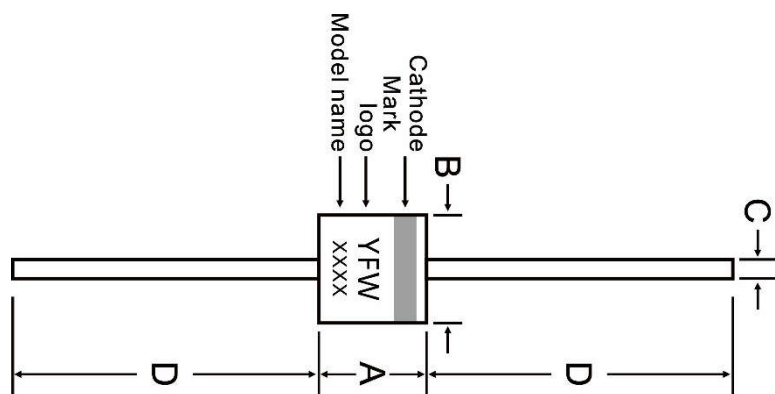
Ordering information

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	-



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.