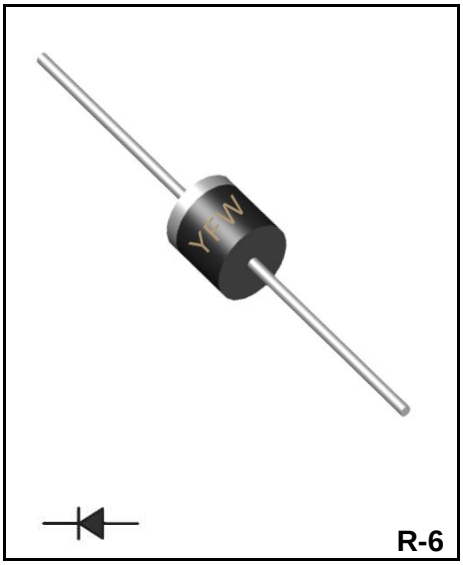
High Efficiency Silicon Rectifiers

Reverse Voltage - 50 to 1000 V
Forward Current - 6 A



FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°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	HER601G	HER602G	HER603G	HER604G	HER605G	HER606G	HER607G	HER608G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_c = 100 °C	$I_{F(AV)}$	6								A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200								A
Maximum Instantaneous Forward Voltage at 6.0A	V_F	1.0				1.4	1.7			V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a=125 °C	I_R	10 500								μA
Maxinum reverse recovery time(Note 1)	Trr	50					75			nS
Typical Junction Capacitance(Note 2)	C_j	100								pF
Typical Thermal Resistance	$R_{\theta JA}$	40								°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150								°C

Note: 1.Reverse recovery time test condition: I_F=0.5A I_R=1.0A Irr=0.25A

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

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

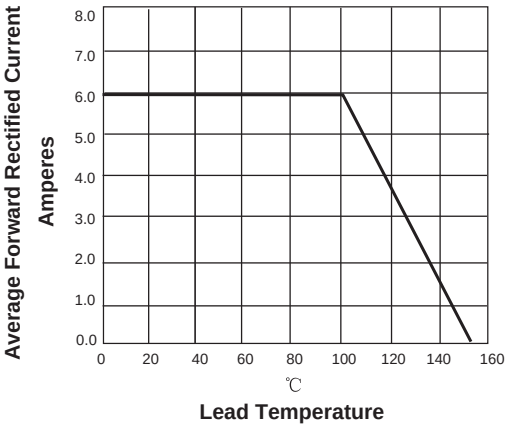


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

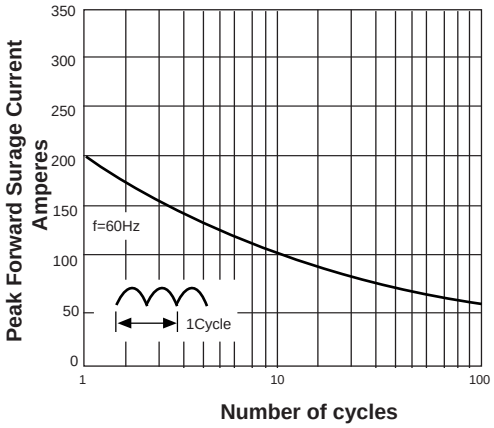


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

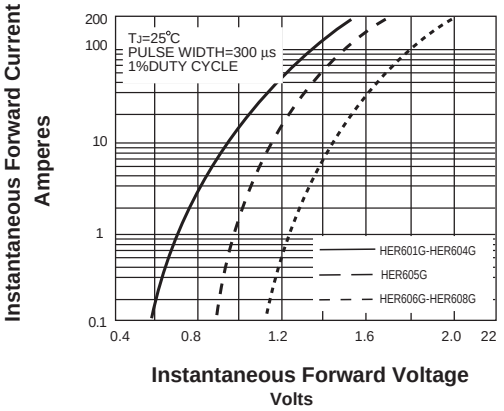
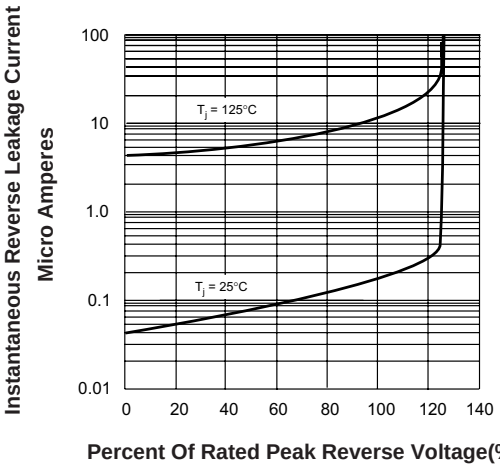


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

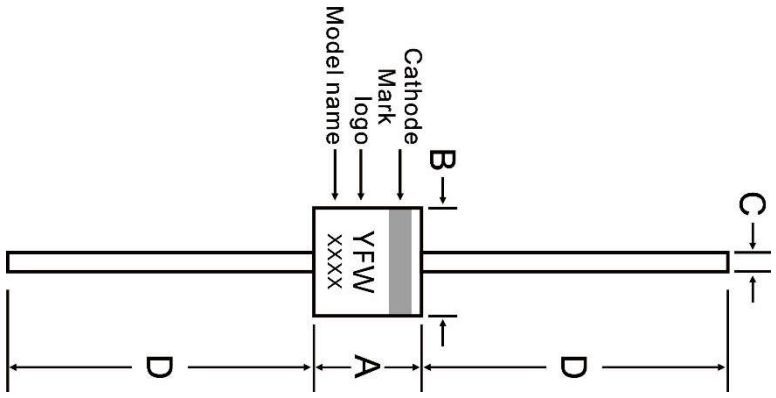


Ordering information

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	8.40	8.90	0.331	0.350
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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