



FR601G~FR606G

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIERS

Voltage Range 50 to 800 Volts

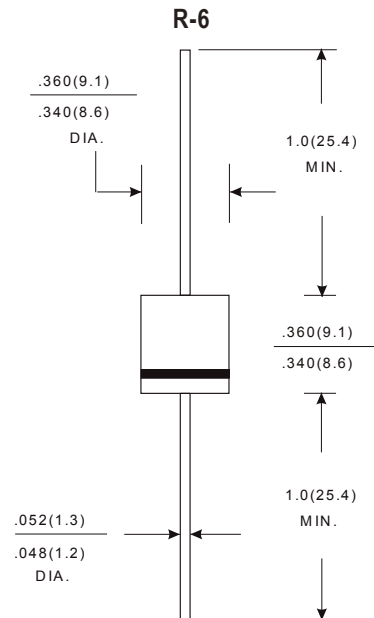
Current 6.0 Amperes

Features

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- * Glass passivated junction in P600 package.
- * Exceeds environmental standards of MIL-S-19500/228
- * 6 ampere operation at $T_A=60^{\circ}\text{C}$ with no thermal runaway.
- * Fast switching for high efficiency.
- * Pb free product are available : 99% Sn can meet Rohs environment substance directive request

Mechanical Data

Case: Molded plastic, P600
 Terminals: Axial leads, solderable to MIL-STD-202G, Method 208
 Polarity: Color Band denotes cathode end
 Mounting Position: Any
 Weight: 0.07 ounce, 2.1 gram



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^{\circ}\text{C}$	I_{AV}	6.0						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	250						A
Maximum Forward Voltage at 3.0A	V_F	1.3						V
Maximum DC Reverse Current at $T_A=25^{\circ}\text{C}$ Rated DC Blocking Voltage $T_A=100^{\circ}\text{C}$	I_R	5.0 300						μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150				250	500	ns
Typical Junction capacitance (Note 2)	C_J	300						pF
Typical Thermal Resistance(Note 3)	$R_{\theta JA}$	10						$^{\circ}\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 TO +150						$^{\circ}\text{C}$

NOTES:

- Reverse Recovery Test Conditions: $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$
- Measured at 1 MHz and applied reverse voltage of 4.0 VDC



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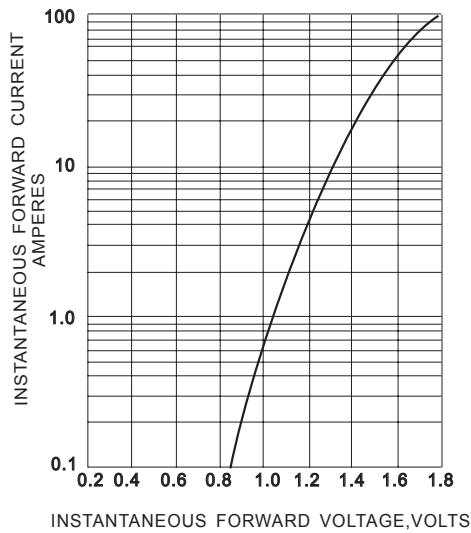


Fig.1-FORWARD CHARACTERISTICS

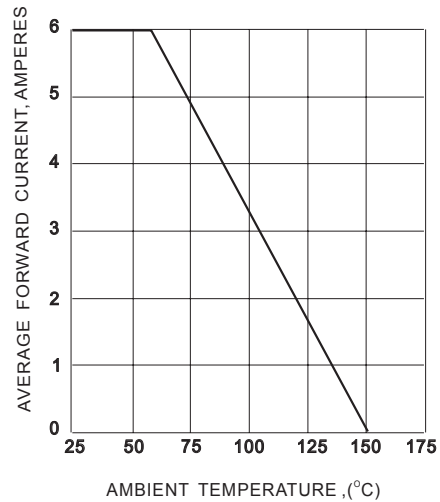


Fig.2-FORWARD CURRENT DERATING CURVE

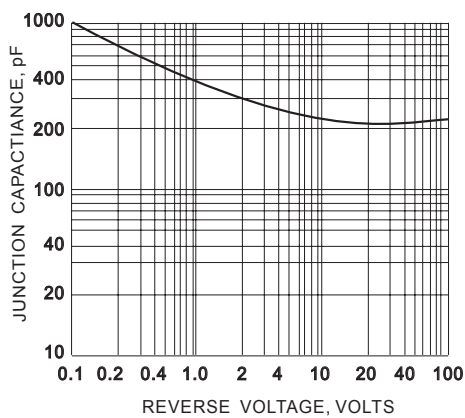


Fig.3-TYPICAL JUNCTION CAPACITANCE

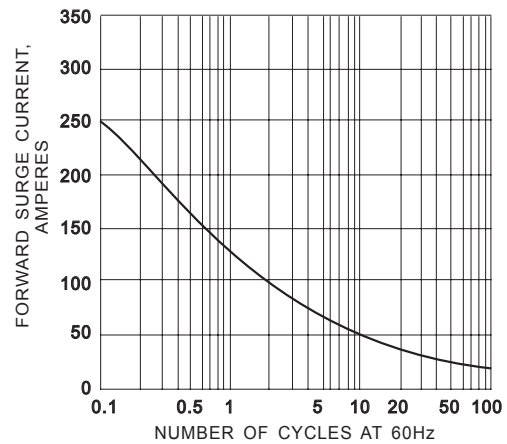


Fig.4-PEAK FORWARD SURGE CURRENT