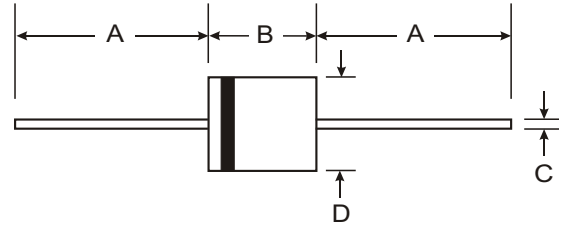


6.0A FAST RECOVERY RECTIFIER

FR601 - FR607 Vishaymas General Semiconductor

Features

- Low Reverse Recovery Time
- Low Reverse Current
- Low Forward Voltage Drop
- High Current Capability
- Plastic Material: UL Flammability Classification Rating 94V-0



Mechanical Data

Case: R-6, Molded Plastic

Terminals: Axial Leads, Solderable per MIL-STD-202 Method 208

Polarity: Color Band Denotes Cathode

Weight: 1.7 grams (approx.)

Mounting Position: Any

R-6		
Dim	Min	Max
A	25.4	—
B	8.6	9.1
C	1.2	1.3
D	8.6	9.1
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified.

Characteristic	Symbol	FR 601	FR 602	FR 603	FR 604	FR 605	FR 606	FR 607	Unit
Maximum Recurrent 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 9.5mm Lead Length @ $T_A=75^\circ C$	$I_{(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							A
Maximum Instantaneous Forward Voltage @ 6.0A DC	V_F	1.3							V
Maximum DC Reverse Current at Rated Blocking Voltage @ $T_A = 25^\circ C$	I_R	10							μA
Maximum Full Load Reverse Current Full Cycle Average 9.5mm lead length @ $T_L = 55^\circ C$	I_R	150							μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150			250		500		ns
Typical Junction Capacitance (Note 2)	C_J	200							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175							$^\circ C$

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0V.

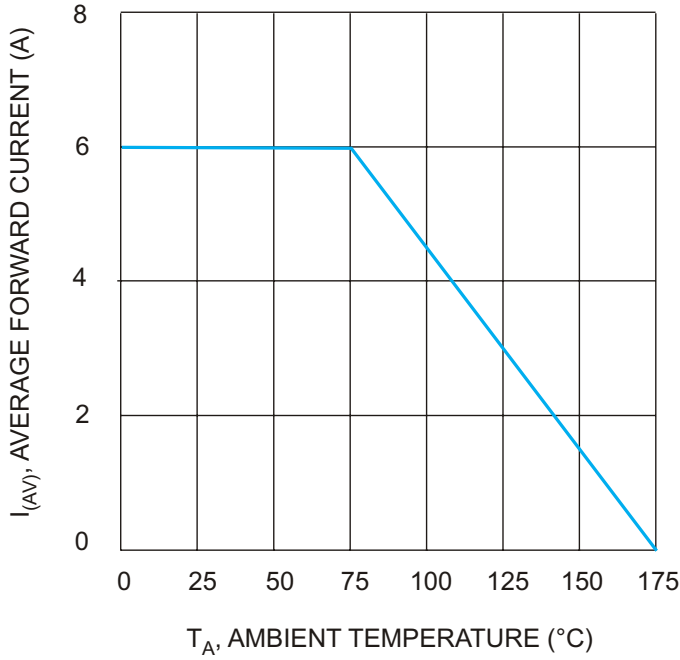


Fig. 1, Typical Forward Current Derating Curve

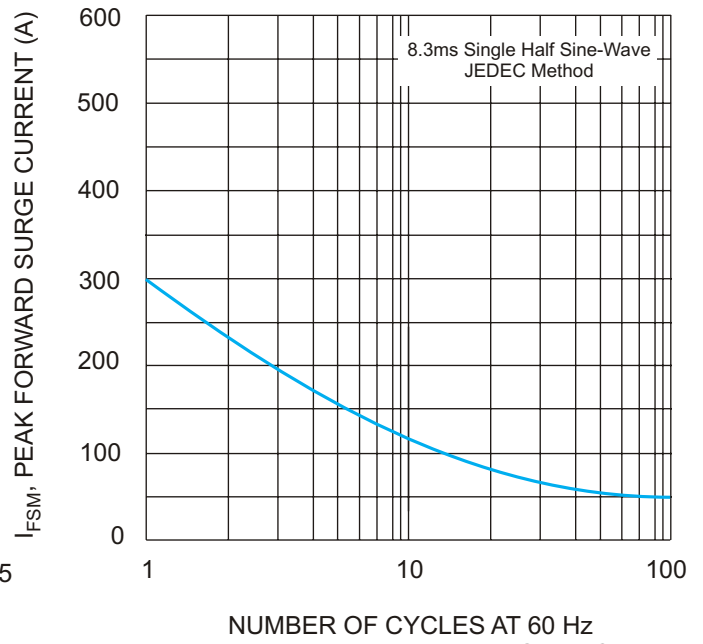


Fig. 2, Max Non-Repetitive Peak Surge Current

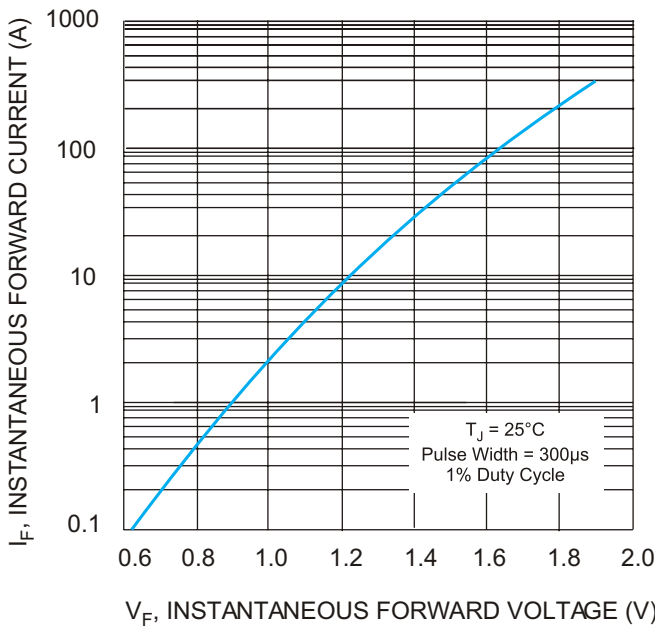


Fig. 3, Typical Instantaneous Forward Characteristics

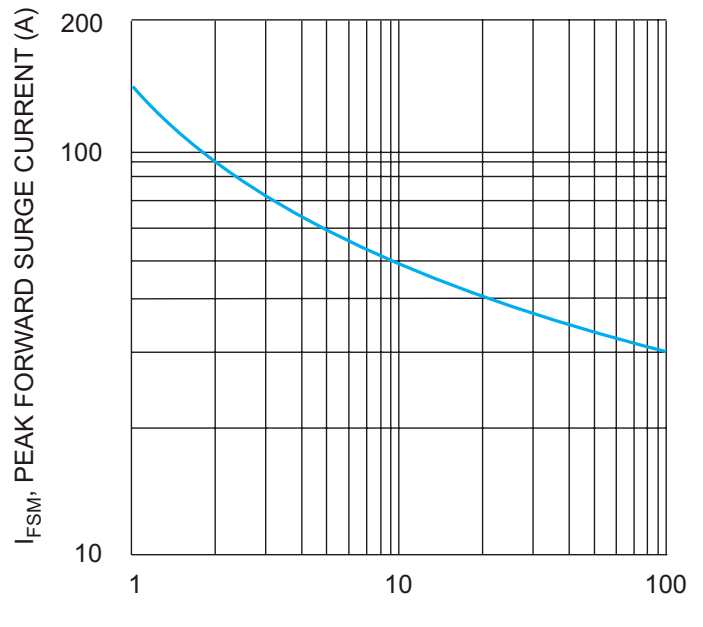


Fig. 4, Maximum Non-Repetitive Surge Current

