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FR601 - FR607

6.0A FAST RECOVERY RECTIFIER

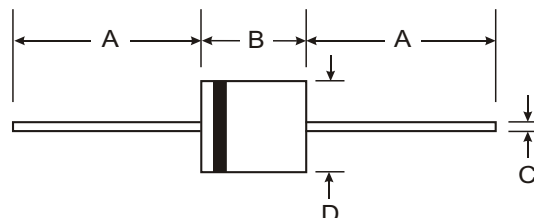
Features

- 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

NOT RECOMMENDED FOR NEW DESIGNS,
PLEASE USE PR6001 - PR6005



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 @ T_A = 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°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°C	I _R	10							μA
Maximum Full Load Reverse Current Full Cycle Average 9.5mm lead length @ T _L = 55°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							°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.

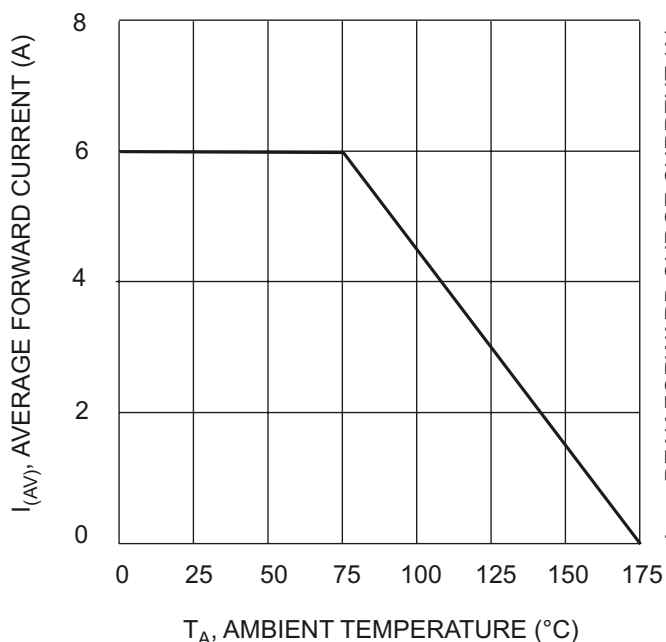


Fig. 1, Typical Forward Current Derating Curve

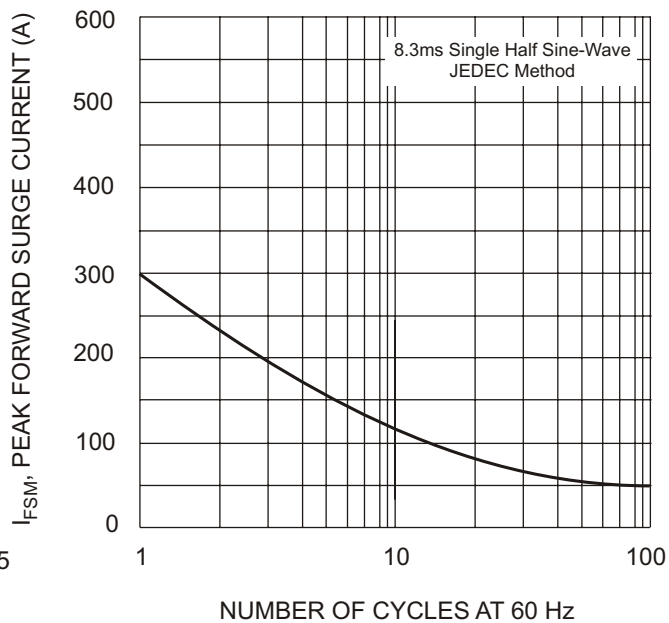


Fig. 2, Max Non-Repetitive Peak Surge Current

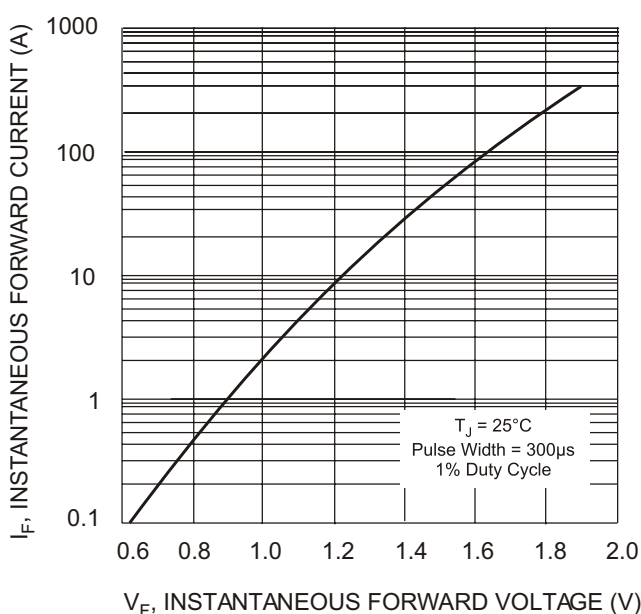


Fig. 3, Typical Instantaneous Forward Characteristics

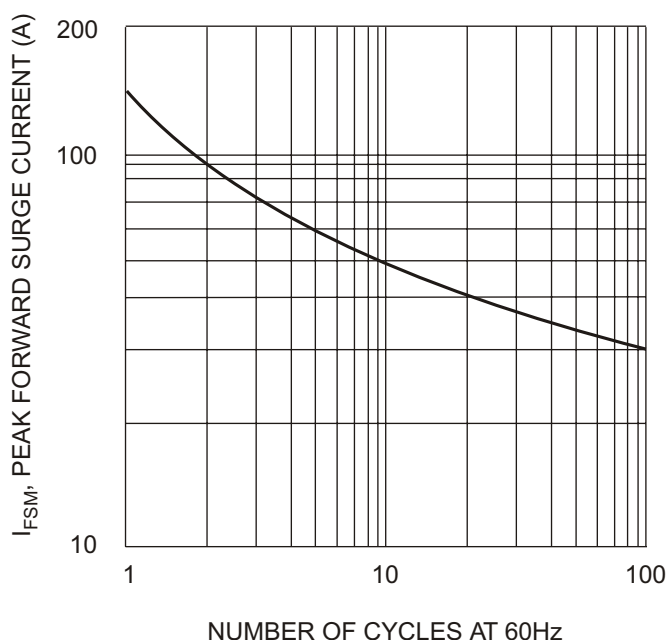


Fig. 4, Maximum Non-Repetitive Surge Current