Technical Data
Data Sheet N0447, Rev. A

FR201G THRU FR207G

FAST RECOVERY GLASS PASSIVATED RECTIFIERS

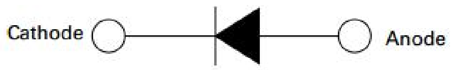
Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Amperes

DO-15

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260 C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension
- Glass passivated chip junction
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014 ounce, 0.40 grams

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

Characteristic	Symbol	FR 201G	FR 202G	FR 203G	FR 204G	FR 205G	FR 206G	FR 207G	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375”(9.5mm) lead length at @T_A =75°C	$I_{(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	70							A
Maximum instantaneous forward voltage at 2.0A	V_F	1.3							V
Maximum DC reverse current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	5.0 100							μA
Maximum reverse recovery time (Note 1)	t_{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_J	40							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	40							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Reverse recovery condition IF=0.5A, IR=1.0A, Irr=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length, P.C.B. mounted

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

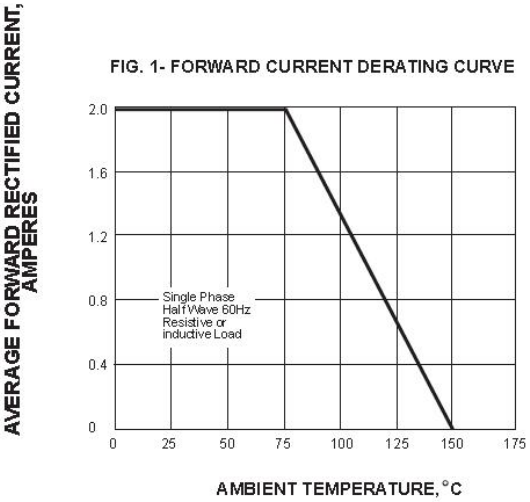


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

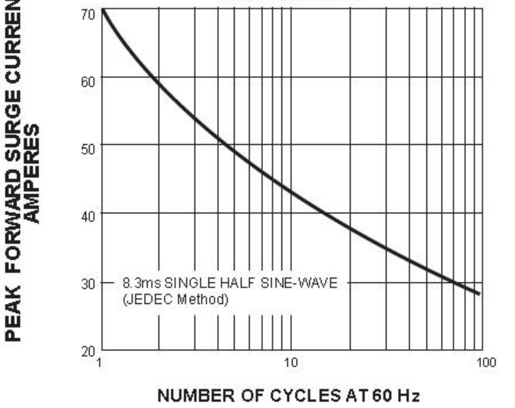


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

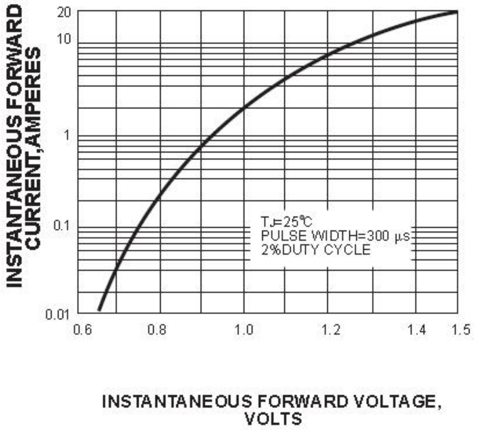


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

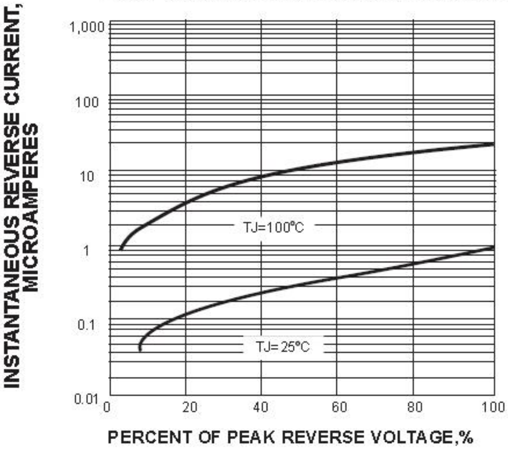


FIG. 5-TYPICAL JUNCTION CAPACITANCE

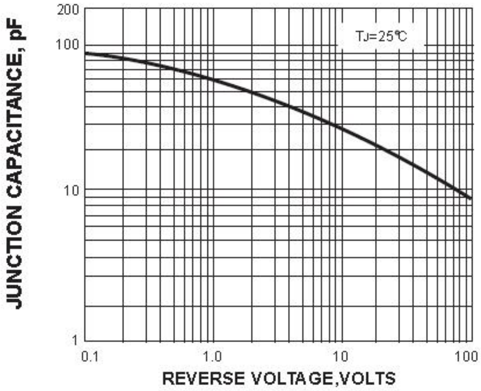
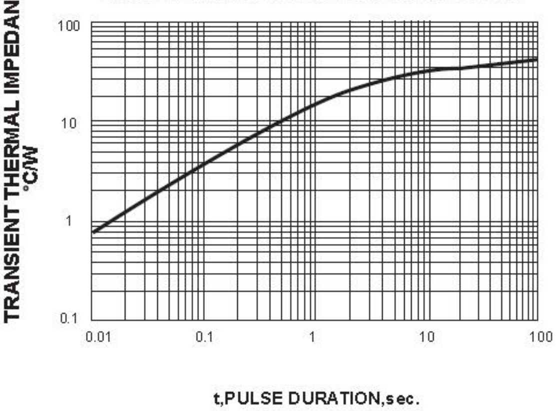
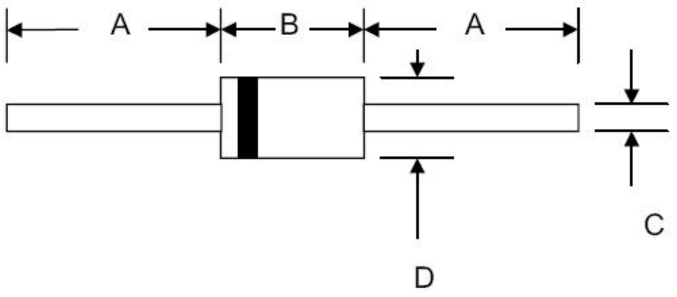


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Mechanical Dimensions DO-15



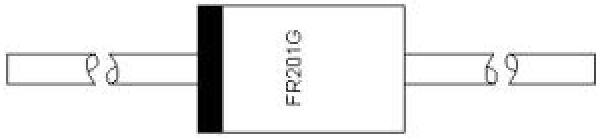
SYMBOL	Millimeters		Inches	
	Min.	**Max.**	**Min.**	**Max.**
A	25.4	-	1.000	-
B	5.5	7.62	0.217	0.300
C	0.7	0.9	0.028	0.034
D	2.6	3.6	0.104	0.140

Ordering Information

Device	Package	Shipping
FR201G-FR207G	DO-15 (Pb-Free)	3000pcs /tape

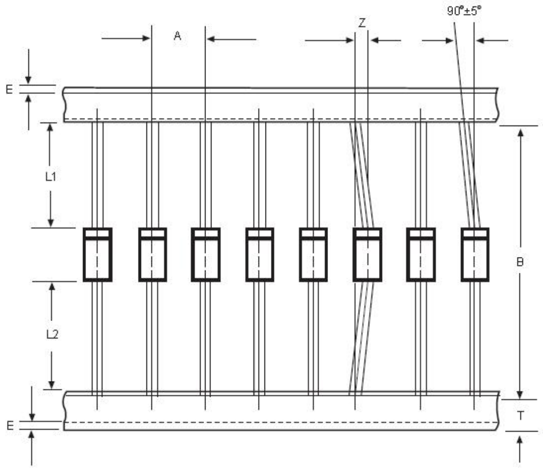
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



FR201G = Part Name

Carrier Tape Specification DO-15



SYMBOL	Millimeters	
	Min.	**Max.**
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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