

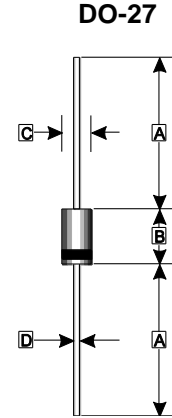
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

MECHANICAL DATA

- Glass Passivated
- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.1050 grams (approximately)



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	7.20	9.53
C	5.00	5.60
D	1.20	1.32

ORDER INFORMATION

Part Number	Type
FR301G ~ FR307G	Lead (Pb)-free
FR301G-C ~ FR307G-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number							Unit
		FR 301G	FR 302G	FR 303G	FR 304G	FR 305G	FR 306G	FR 307G	
Maximum Recurrent 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
Forward Voltage @ $I_F=3.0A$	V_F	1.3							V
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length @ $T_L=55^\circ C$	I_F	3							A
Peak Forward Surge Current 8.3ms Single halfsine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125							A
Peak Reverse Current at Rated DC Blocking Voltage	I_R	5							μA
	$T_A=125^\circ C$	100							
Maximum Reverse Recovery Time ¹	T_{RR}	150			250	500		nS	
Typical Junction Capacitance ²	C_J	65			25			pF	
Typical Thermal Resistance Junction-Ambient	$R_{\theta JA}$	45							$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ 150							$^\circ C$

Notes:

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

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

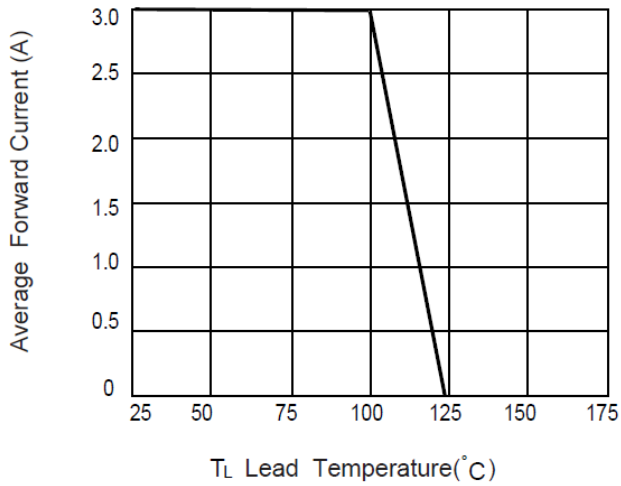


Fig. 2 Typ. Forward Characteristics

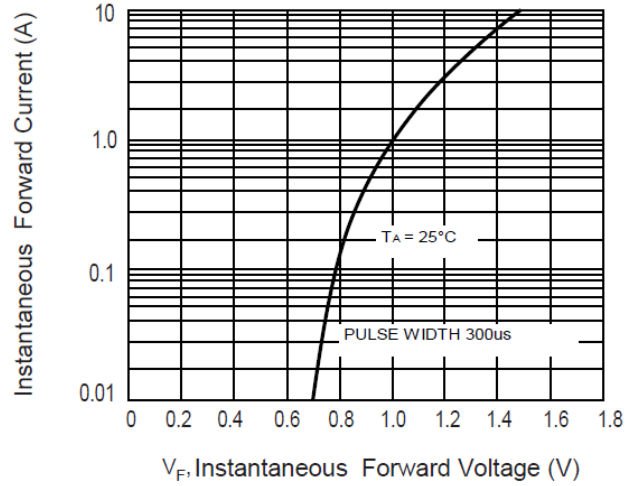


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

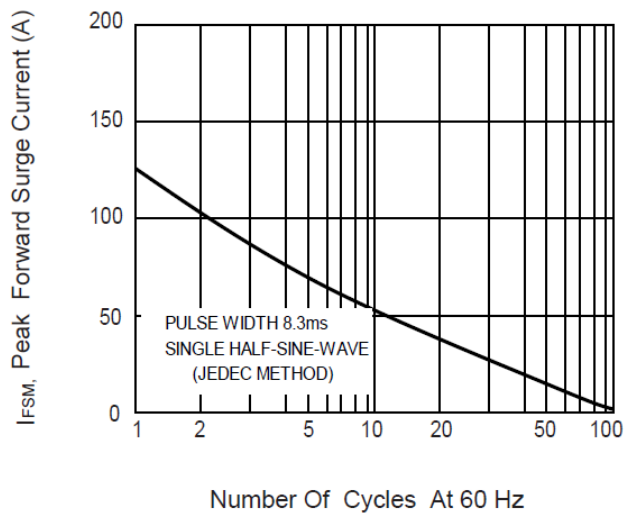


Fig. 4 Typical Reverse Characteristics

