

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

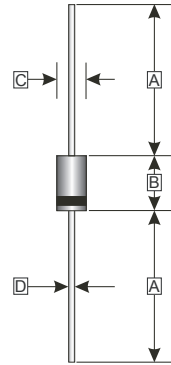
## FEATURES

- 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)

**DO-27**



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

## 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%.

PARAMETERS	SYMBOL	PART NUMBERS							UNITS	TESTING CONDITIONS
		FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307		
Recurrent Reverse Voltage (Max.)	$V_{RRM}$	50	100	200	400	600	800	1000	V	
RMS Voltage (Max.)	$V_{RMS}$	35	70	140	280	420	560	700	V	
DC Blocking Voltage (Max.)	$V_{DC}$	50	100	200	400	600	800	1000	V	
Instantaneous Forward Voltage(Max.)	$V_F$	1.3							V	$I_F = 3A$
Average Forward Rectified Current (Max.)	$I_O$	3.0							A	0.375" (9.5mm) lead length @ $T_A = 75^\circ C$
Peak Forward Surge Current	$I_{FSM}$	80							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
DC Reverse Current (Max.)	$I_R$	5.0							$\mu A$	$V_R = V_{DC}, T_A = 25^\circ C$
		150								$V_R = V_{DC}, T_A = 100^\circ C$
Reverse Recovery Time (Max.)	$T_{RR}$	150			250	500		nS	$I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	
Junction Capacitance (Typ.)	$C_J$	60							pF	f=1MHz and applied 4V DC reverse voltage
Storage Temperature Range	$T_{STG}$	-65 ~ 150							$^\circ C$	

**RATINGS AND CHARACTERISTIC CURVES (FR301 THRU FR307)**

FIG.1-TYPICAL FORWARD CHARACTERISTICS

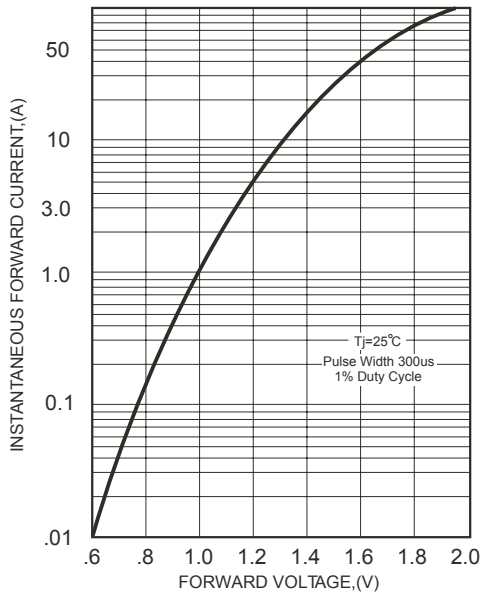


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

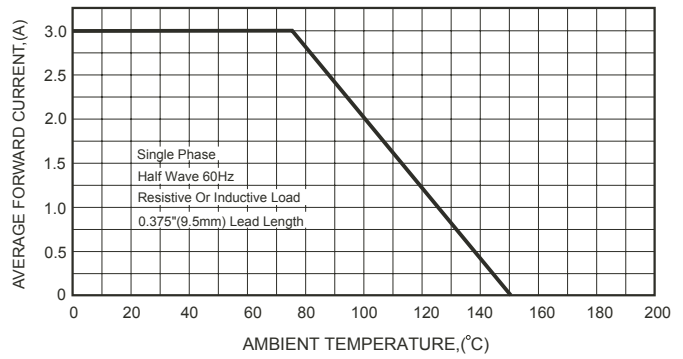


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

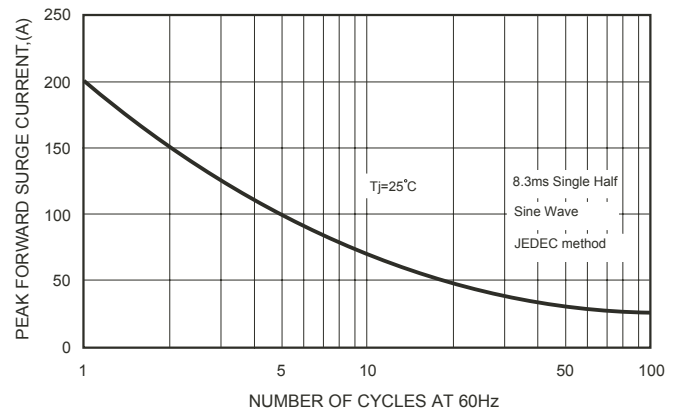
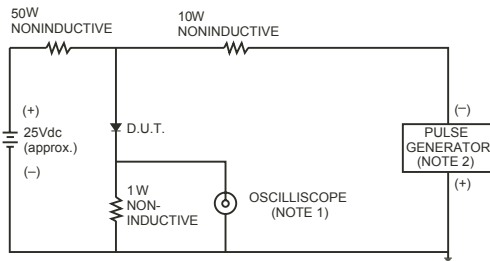


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

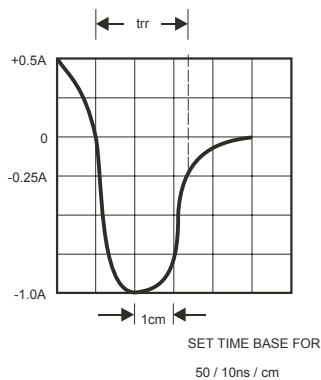


FIG.5-TYPICAL JUNCTION CAPACITANCE

