

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

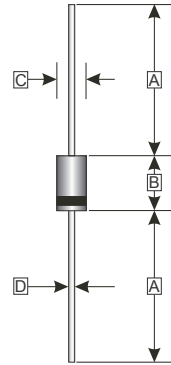
FEATURES

- 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							μA	$V_R = V_{DC}, T_A = 25^\circ C$
		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

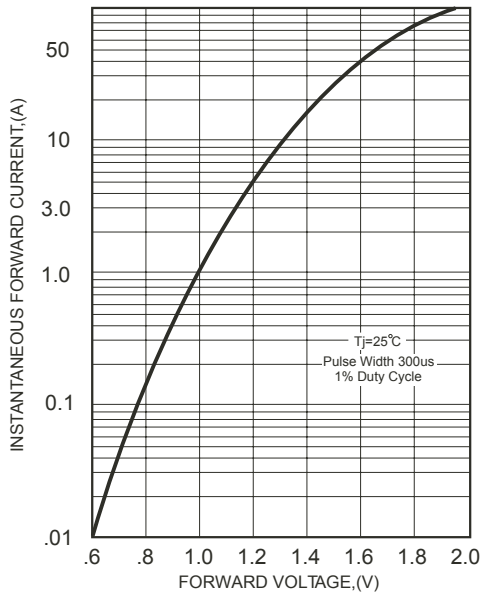


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

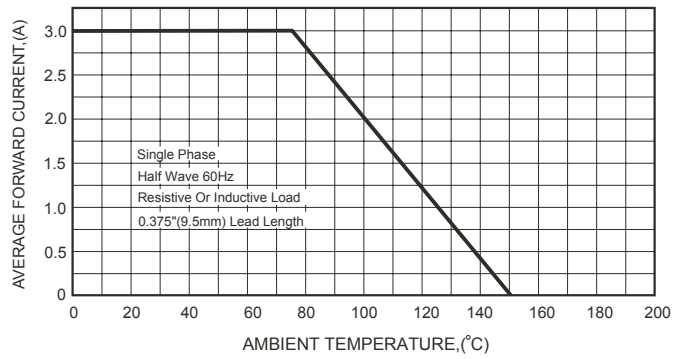


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

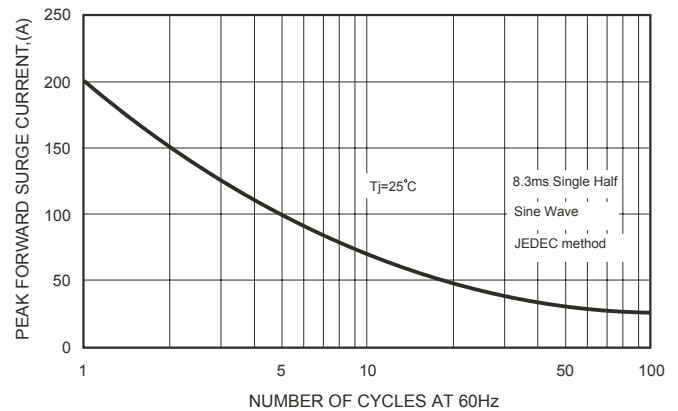
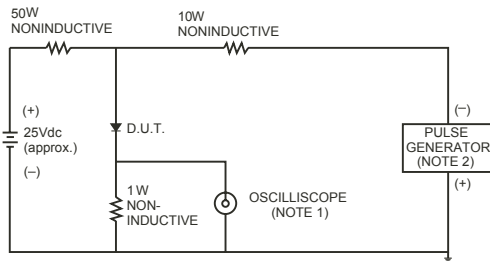


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

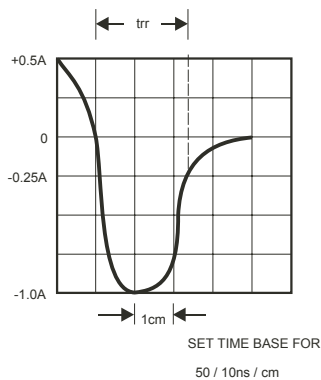


FIG.5-TYPICAL JUNCTION CAPACITANCE

