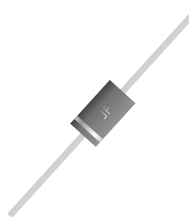


FEATURES

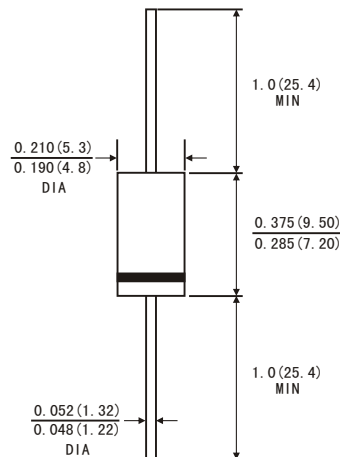
- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- *Case:* JEDEC DO-201AD molded plastic body
- *Terminals:* Plated axial leads, solderable per MIL-STD-750, Method 2026
- *Polarity:* Color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.041 OUNCE, 1.18 grams



DO-201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	FR 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm)lead length at T _A =55°C	I _(AV)	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150							Amps
Maximum Instantaneous Forward Voltage at 3.0A	V _F	1.2							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	10							μA
	T _A =100°C	150							
Maximum reverse recovery time(Note1)	t _{rr}	150				250	500		ns
Typical junction capacitance(Note2)	C _J	60							pF
Operating junction and storage temperature range	T _J T _{STG}	-65 to +150							°C

Note: 1. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES FR301 THRU FR307

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

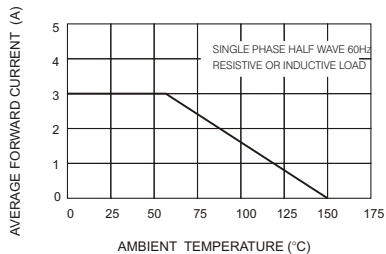


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

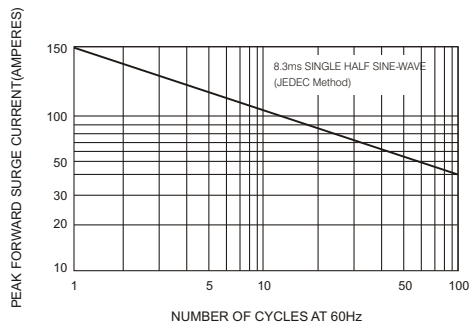


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

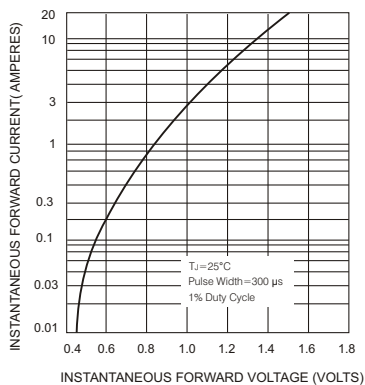


FIG.4-TYPICAL JUNCTION CAPACITANCE

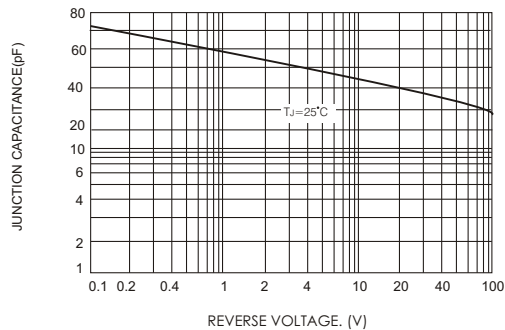
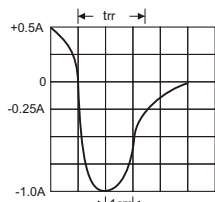
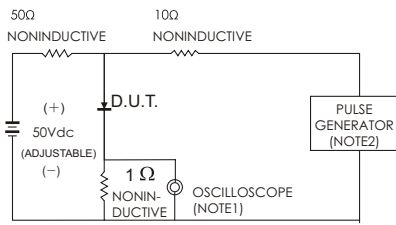


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



SET TIME BASE FOR 50/100 ns/cm

- NOTES: 1. Rise Time=7ns max. input Impedance=1 megohm 22pF
 2. Rise Time=10ns max. source Impedance=50 ohms