

FAST RECOVERY RECTIFIER

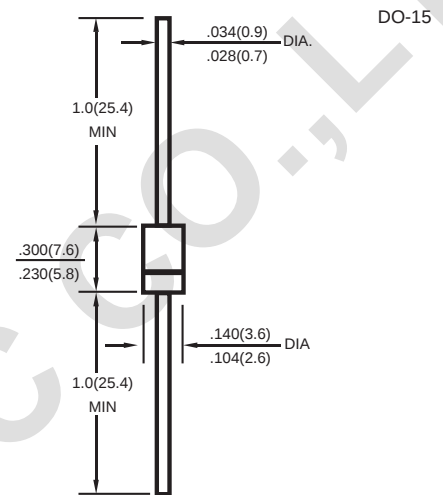
FEATURES

- Low cost construction
- 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
at 5 lbs (2,3kg) tension

MECHANICAL DATA

- **Case:** Transfer molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Polarity:** Color band denotes cathode end
- **Lead:** Plated axial lead, solderable per MIL-STD-202E method 208C
- **Mounting position:** Any
- **Weight:** 0.014 ounce, 0.39 gram

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 2.0 Amperes



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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 201	FR 202	FR 203	FR 204	FR 205	FR 206	FR 207	UNITS
Maximum Repetitive 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 Reverse 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 =75°C		I _(AV)	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	70							Amps
Maximum Instantaneous Forward Voltage at 2.0A		V _F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	I _R	5.0							μAmps
	T _A =100°C		200							
Maximum Reverse Recovery Time(Note3) T _J =25°C		t _{rr}	150				250	500	nS	
Typical Junction Capacitance(NOTE1)		C _J	25							pF
Typical Thermal Resistance(NOTE2)		R _{θJA}	40							°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +150							°C

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.
3. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

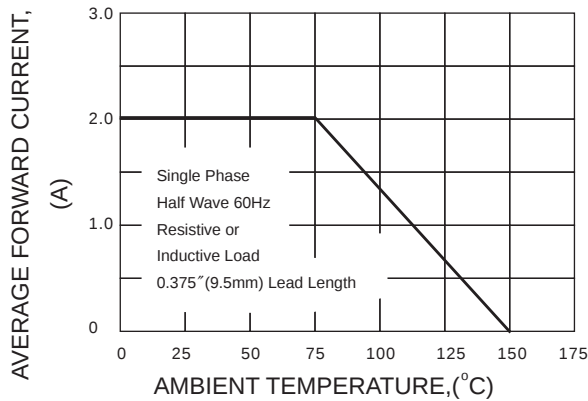


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

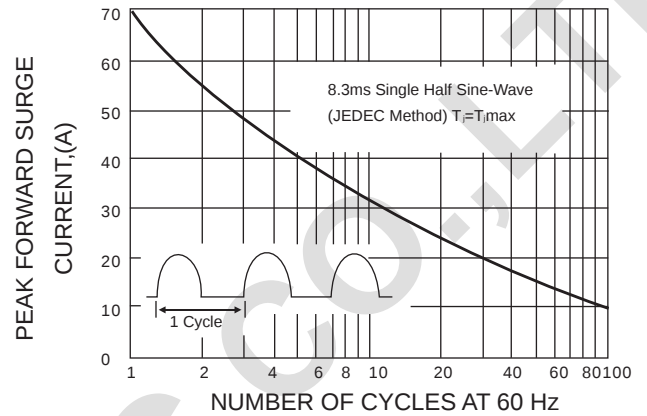


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

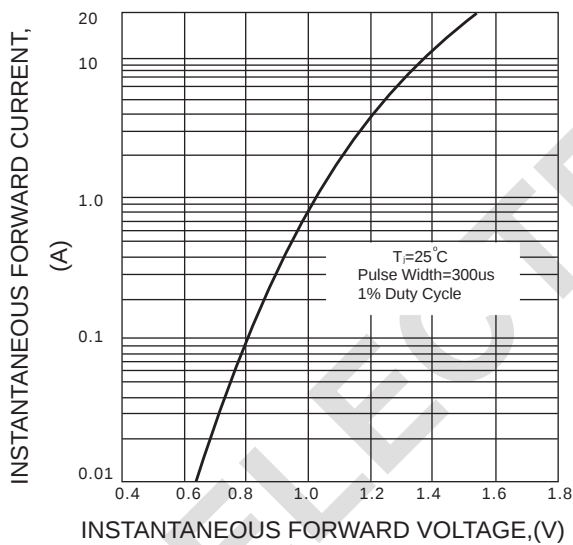


FIG.4-TYPICAL REVERSE CHARACTERISTICS

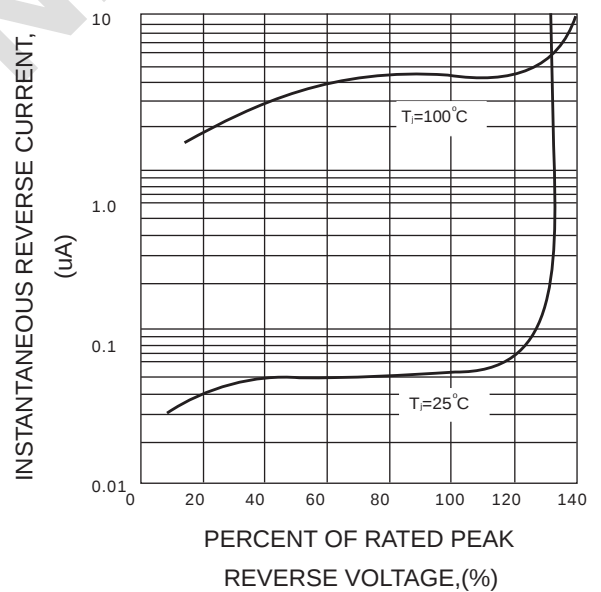


FIG.5-TYPICAL JUNCTION CAPACITANCE

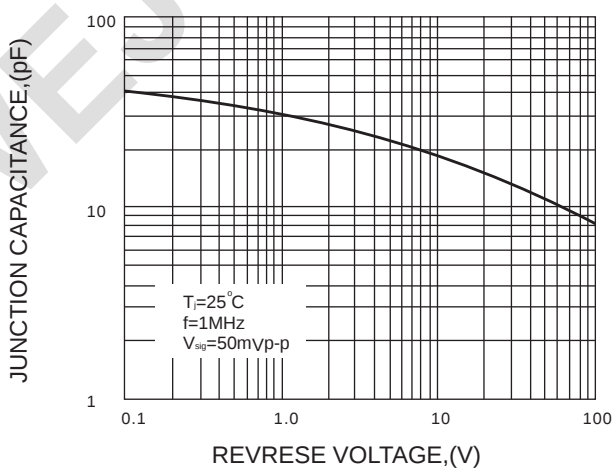


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

