



SUPER FAST GLASS PASSIVATED RECTIFIERS

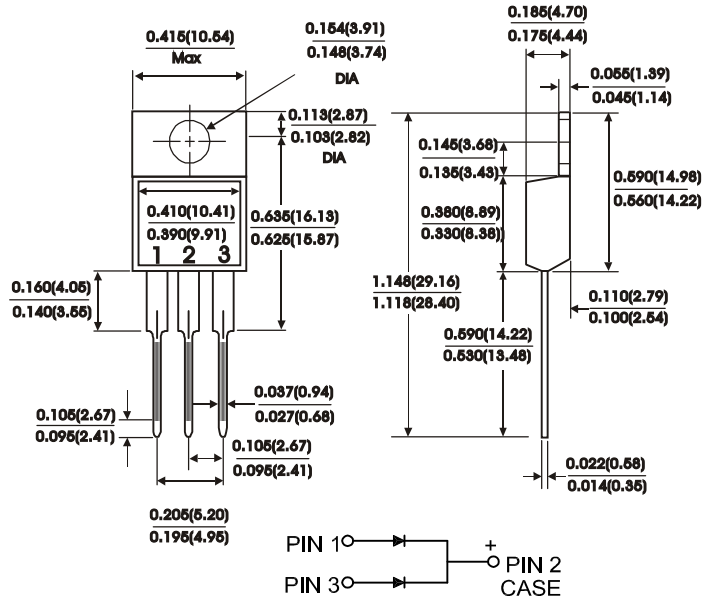
TO-220 AB

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideally suited for freewheeling diode power factor correction applications
- Excellent high temperature switching
- Optimized to reduce switching losses
- High temperature soldering guaranteed : 250°C /10 second, 0.25"(6.35mm) from case

MECHANICAL DATA

Case : JEDEC TO-220AB molded plastic
 Terminals : Leads solderable per MIL-STD-750 Method 2026
 Position : As marked
 Mounting Position : Any
 Mounting Torque : 5 in - lbs.max
 Weight : 0.08 ounce, 2.24grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	SF 10005CT	SF 1001CT	SF 1002CT	SF 1003CT	SF 1004CT	SF 1006CT	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	300	400	600	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	Volts
Maximum average forward rectified current at T _c =100°C	I _(AV)	10.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)(Per leg)	I _{FSM}	100						Amps
Maximum instantaneous forward voltage (Per leg) I _F =5.0A	V _F	1.0		1.30		1.70		Volts
Maximum DC reverse current at rated DC blocking voltage (Per leg) T _c =25 °C T _c =125 °C	I _R	10.0 500.0						μA
Typical reverse recovery time(NOTE 1)(Per leg)	T _{RR}	35						nS
Typical junction capacitance (NOTE 2)(Per leg)	C _J	50						P _F
Operating temperature range	T _J	-55to+150						°C
Storage temperature range	T _{Stg}	-55to+150						°C

NOTES:
 (1)Reverse Recovery Test CONDITION : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
 (2)Measured at 1MHZ and reverse Voltage of 4.0V
 (3)Marking : SF10005CT = SF10005 (Without Marking "CT")
 Symbol Marking



RATINGS AND CHARACTERISTIC CURVES

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

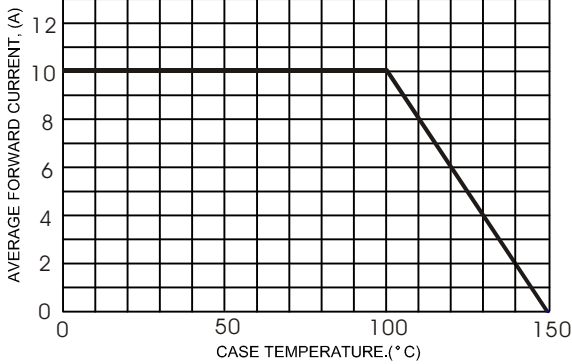


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

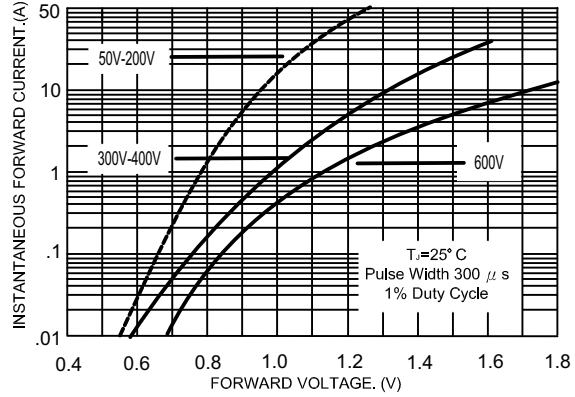


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

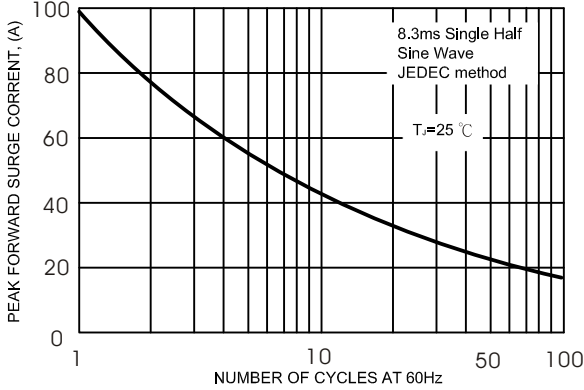


Figure 6 GR1 Test Circuit

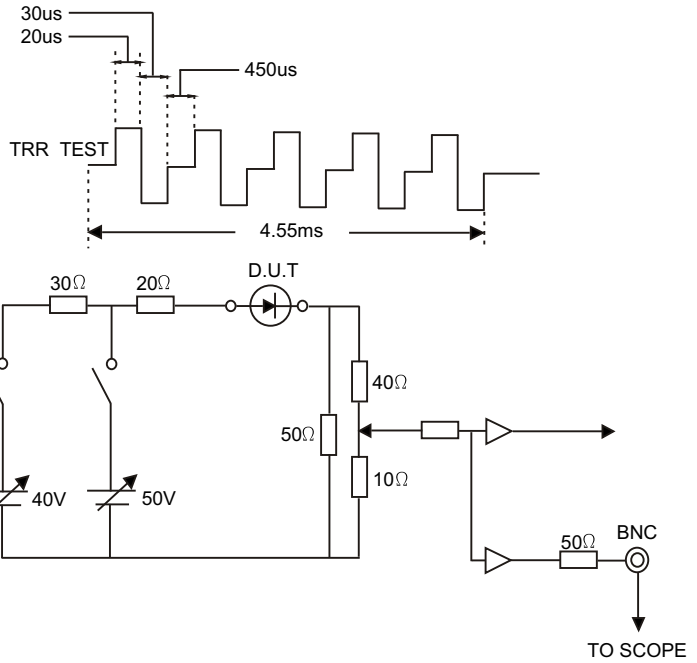


FIG.4- TYPICAL JUNCTION CAPACITANCE

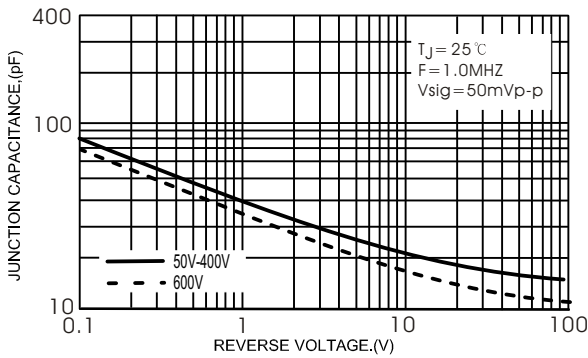
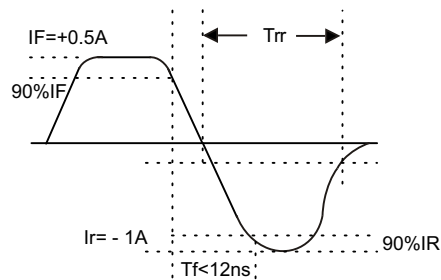
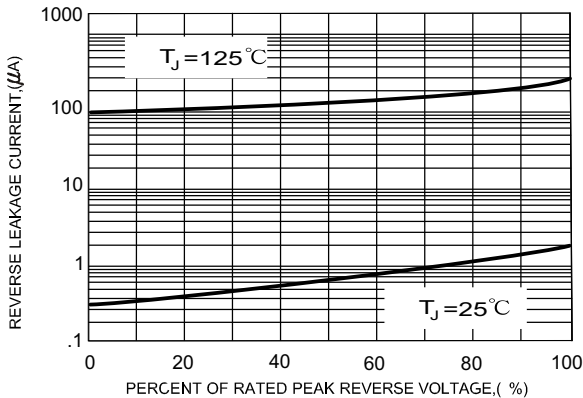


FIG.5- TYPICAL REVERSE CHARACTERISTICS





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