

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

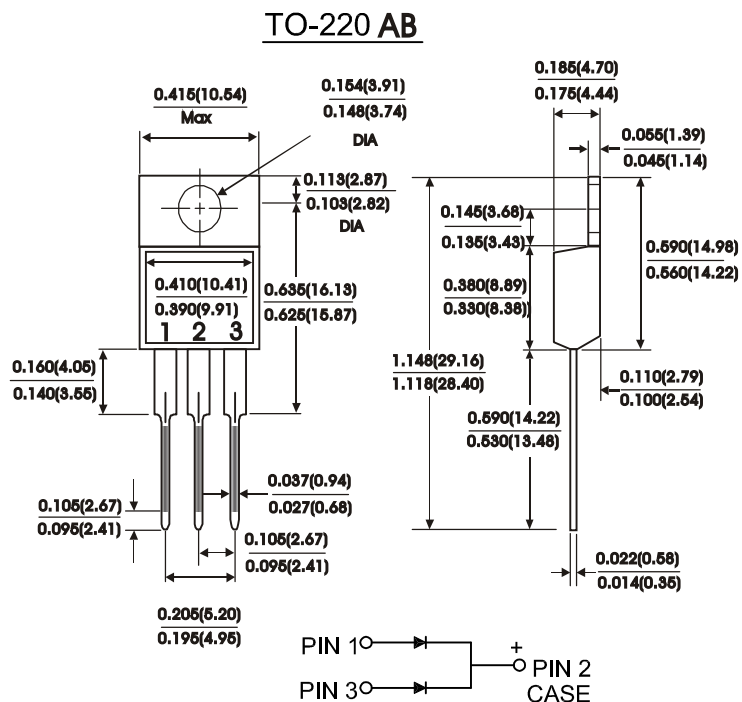
Case : JEDEC TO-220AB molded plastic
 Terminals : Leads solderable per MIL-STD-750 Method 2026

Position : As marked

Mounting Position : Any

Mounting Torque : 5 in - lbs.max

Weight : 0.08 ounce, 2.24grams



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 $T_c=100^\circ\text{C}$	$I_{(AV)}$	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) $T_c=25^\circ\text{C}$ $T_c=125^\circ\text{C}$	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						$^\circ\text{C}$
Storage temperature range	T_{Stg}	-55to+150						$^\circ\text{C}$

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 SF1005CT THRU SF1006CT

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

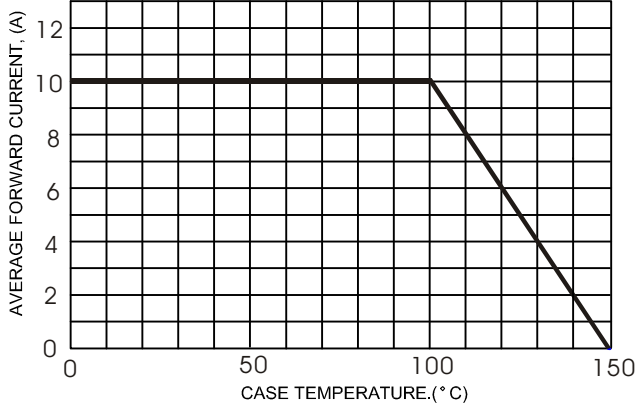


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

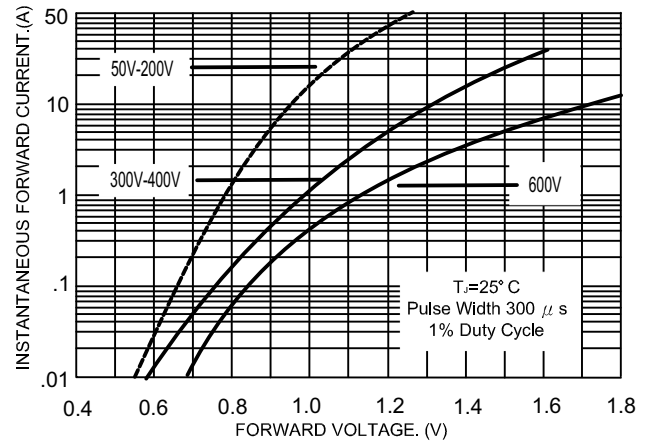


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

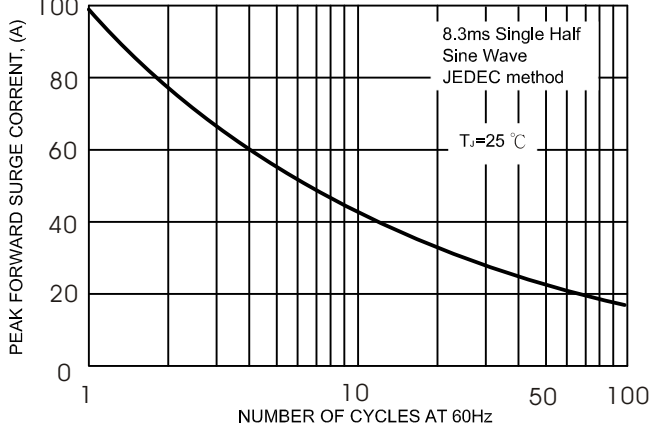


Figure 6 GR1 Test Circuit

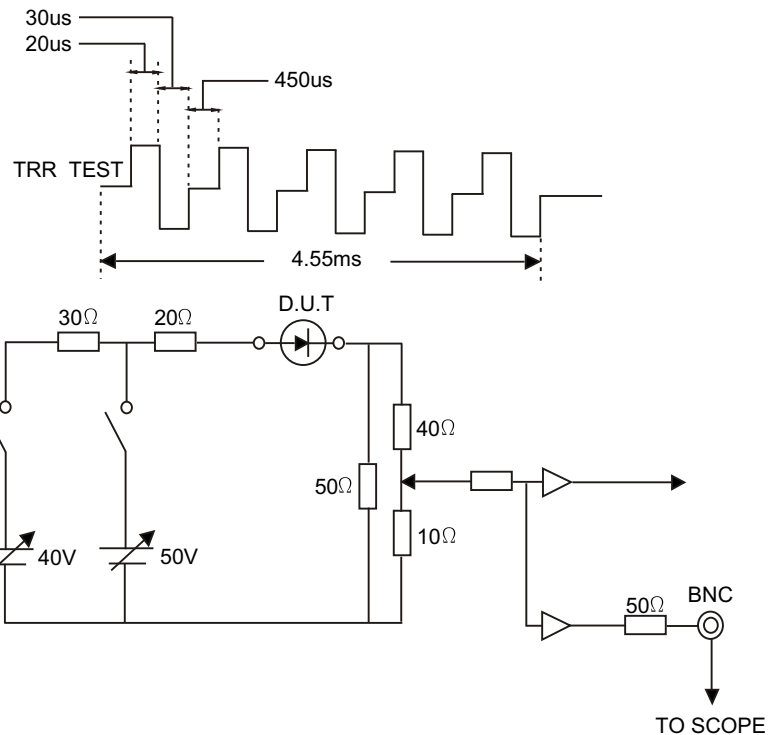


FIG.4- TYPICAL JUNCTION CAPACITANCE

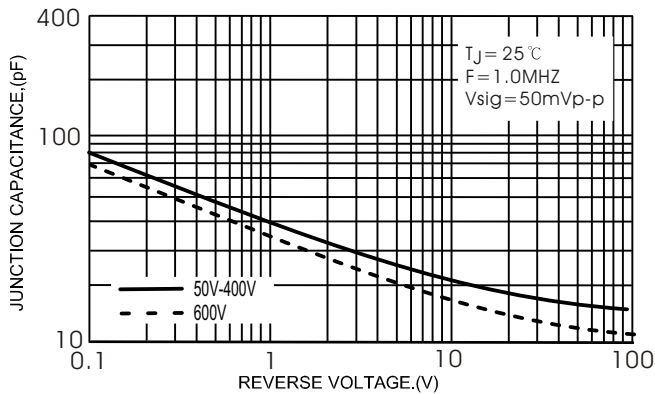


FIG.5- TYPICAL REVERSE CHARACTERISTICS

