SF5005CT THUR SF506CT

SUPER FAST GLASS PASSIVATED RECTIFIERS

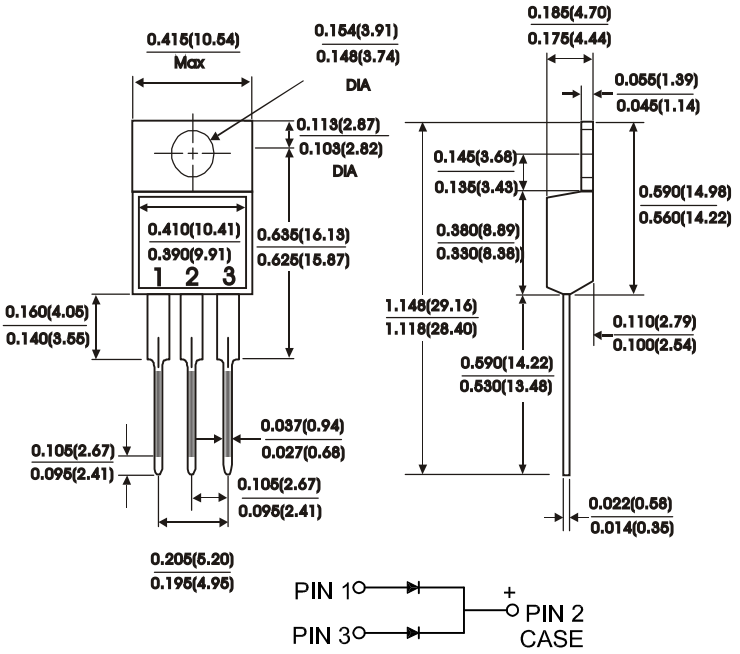
FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Idedlly suited for freewheeling diode power factor correction applications
- Excellent high temperature switching
- Optimized to reduce switching losses
- High temperature soldering guaranteed : 250℃ /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
Mouncting Position : Any
Mouncting Torquce : 5 in - lbs.max
Weight : 0.08 ounce, 2.24grams

TO-220 AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	SFF 5005CT	SFF 501CT	SFF 502CT	SFF 503CT	SFF 504CT	SFF 506CT	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 Tc=132℃	$I_{(AV)}$	5.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)(Per leg)	I_{FSM}	45						Amps
Maximum instantaneous forward voltage (Per leg) IF=2.5A	V_F	0.98			1.30		1.70	Volts
Maximum DC reverse current at rated DC blocking voltage (Per leg) Tc=25 ℃ Tc=125℃	I_R	10.0 500.0						μA
Typical reverse recovery time (NOTE 1)(Per leg)	T_{RR}	35						nS
Typical junction capacition (NOTE 2)(Per leg)	C_J	50						P_F
Operating temperature range	T_J	-55to+150						℃
Storage temperature range	T_{Stg}	-55to+150						℃

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 : SF5005CT (Symbol) = SF5005 (Marking) (Without Marking "CT")

FIG.1 - TYPICAL FORWARD CORRENT DERATING CURVE

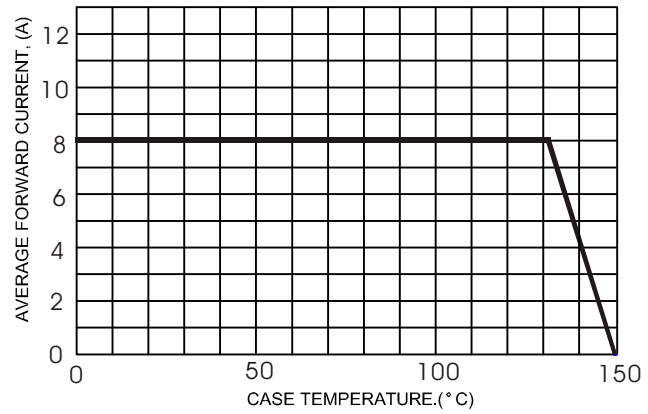


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

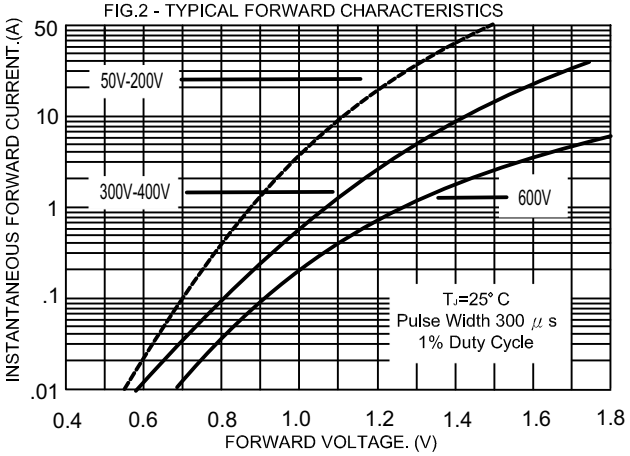


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

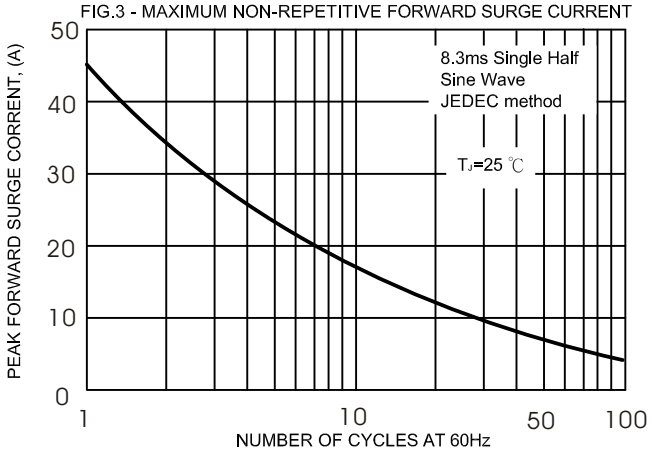


Figure 6 GR1 Test Circuit

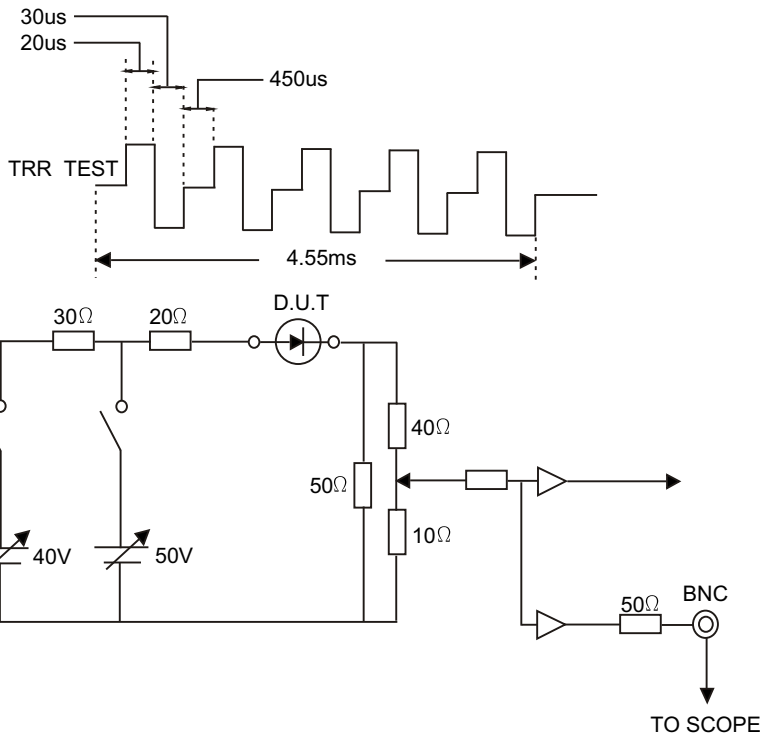
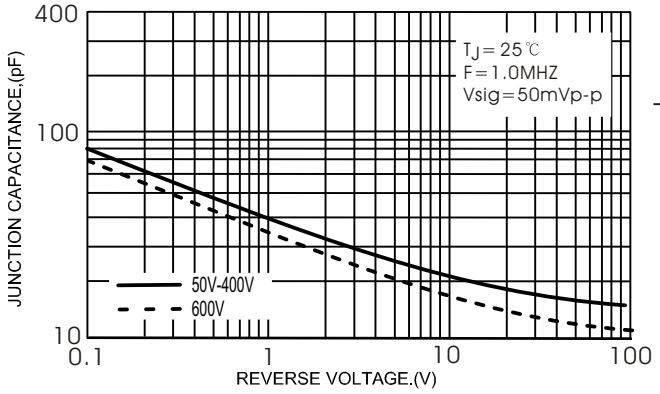


FIG.4- TYPICAL JUNCTION CAPACITANCE



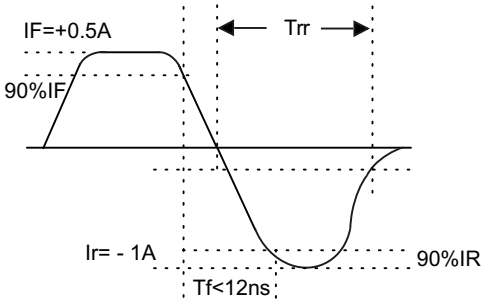
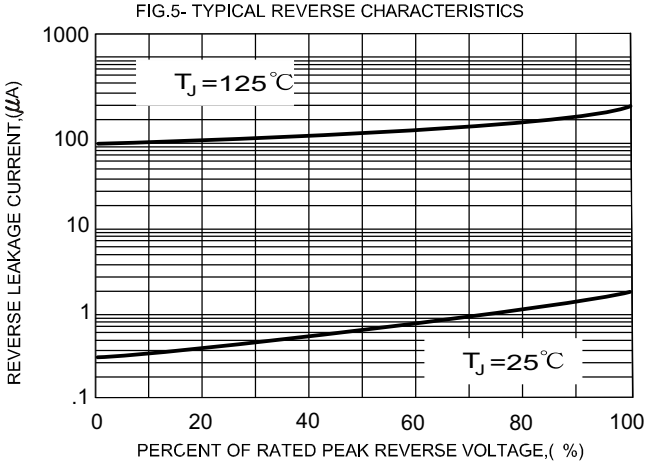



FIG.5- TYPICAL REVERSE CHARACTERISTICS