



SUPER FAST GLASS PASSIVATED RECTIFIERS

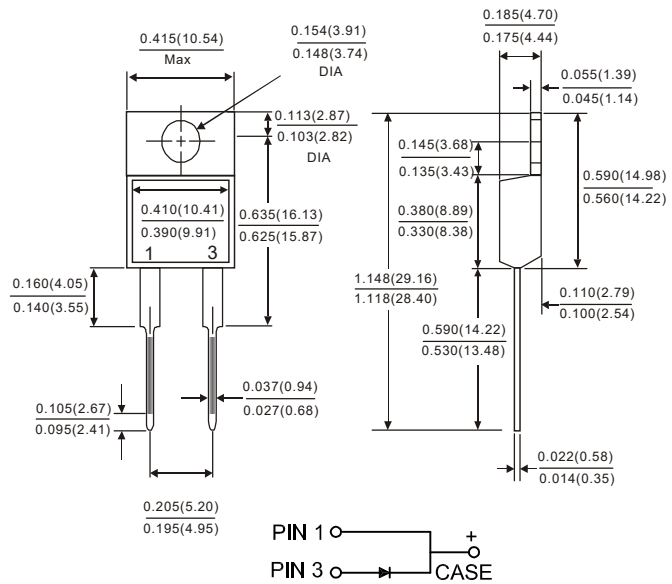
TO-220 AC

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-220AC 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, 2.24 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

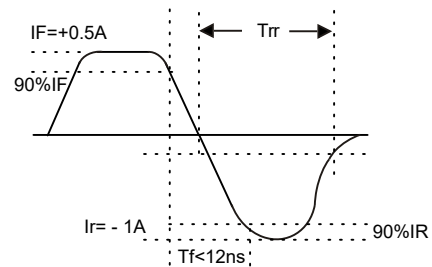
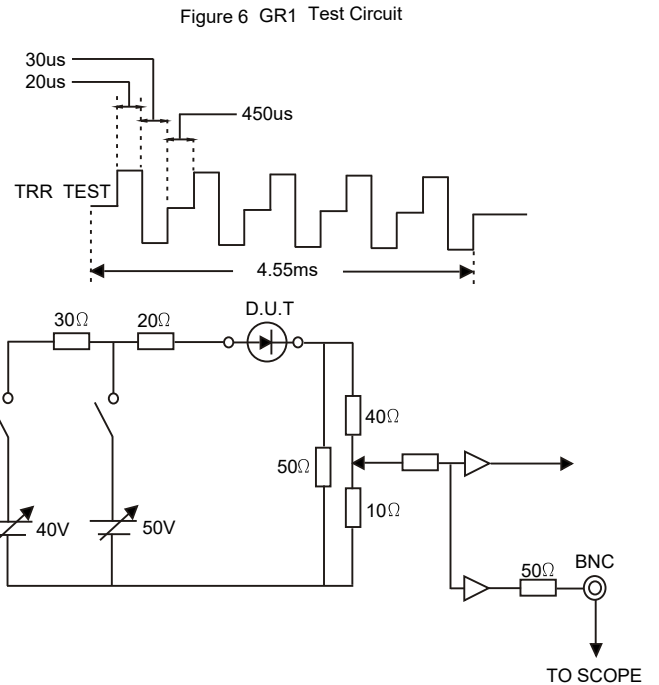
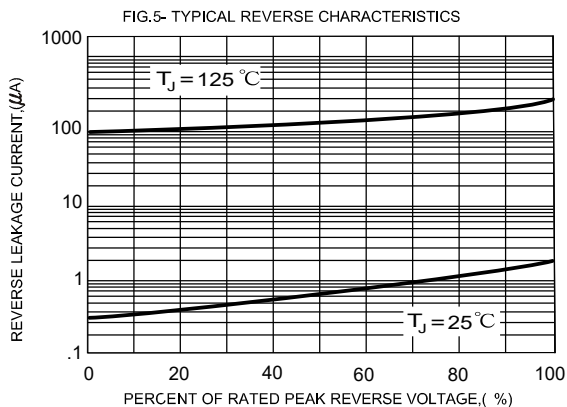
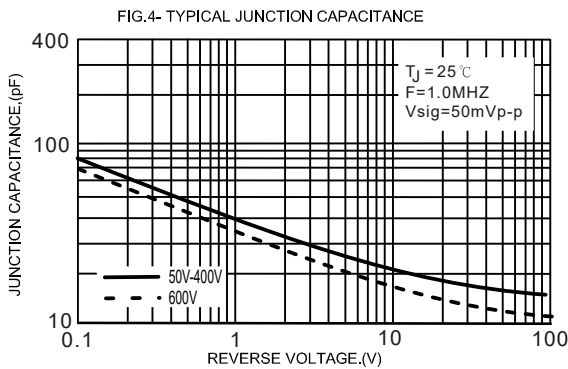
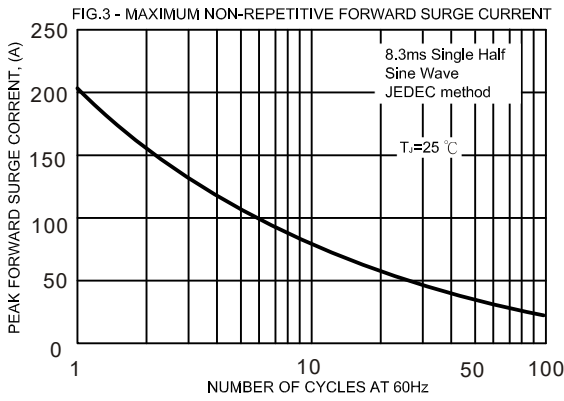
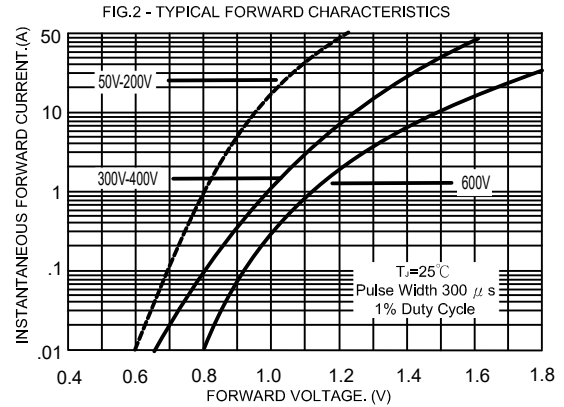
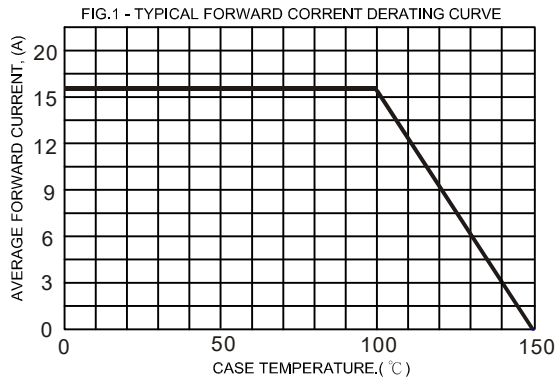
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase half wave, 60 Hz resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	SF 16005	SF 1601	SF 1602	SF 1603	SF 1604	SF 1606	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 $T_c=100^\circ\text{C}$ (Per Pak)	$I_{(AV)}$	16.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Per leg)	I_{FSM}	200						Amps
Maximum instantaneous forward voltage (Per leg) $I_F=16A$	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	175				145		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 : SF16005CT = SF16005 (Without Marking "CT")
 Symbol Marking



RATINGS AND CHARACTERISTIC CURVES





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