

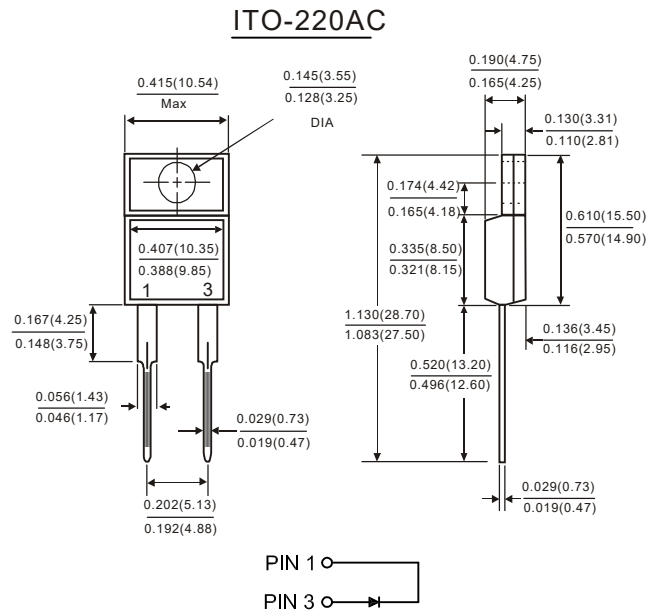


**FEATURES:**

- 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 ITO-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, 2.24grams



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	SFF 16005	SFF 1601	SFF 1602	SFF 1603	SFF 1604	SFF 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 $T_c=100^\circ C$ (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) $T_c=25^\circ C$ $T_c=125^\circ C$	$I_R$	10.0 500.0						$\mu A$
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						$^\circ C$
Storage temperature range	$T_{Stg}$	-55to+150						$^\circ C$

- 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

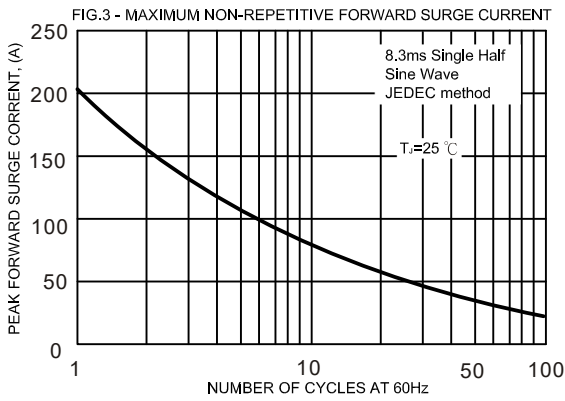
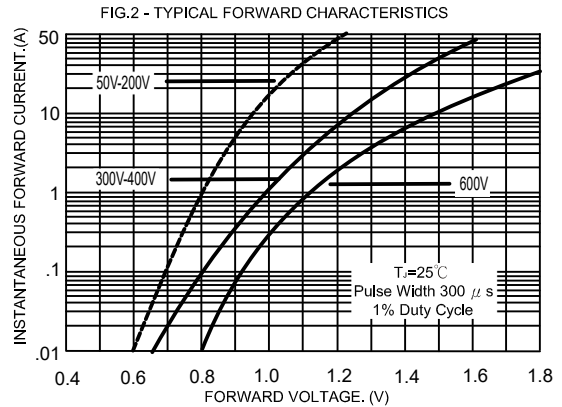
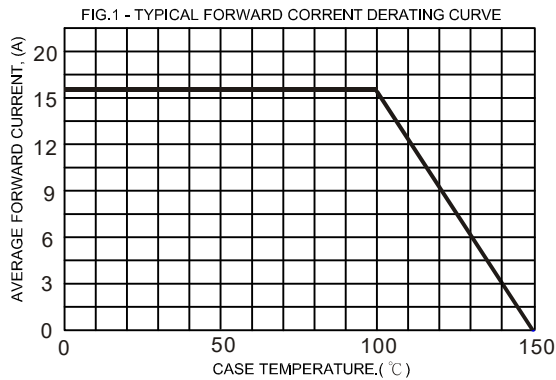
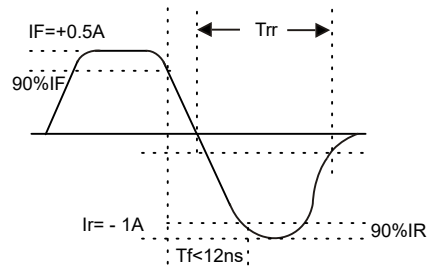
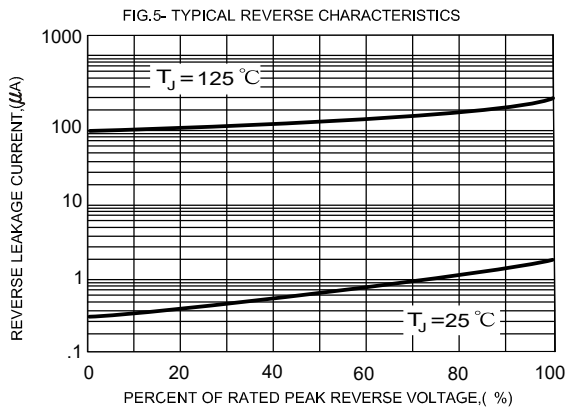
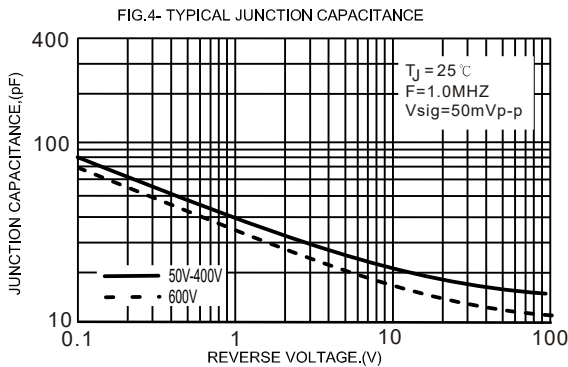
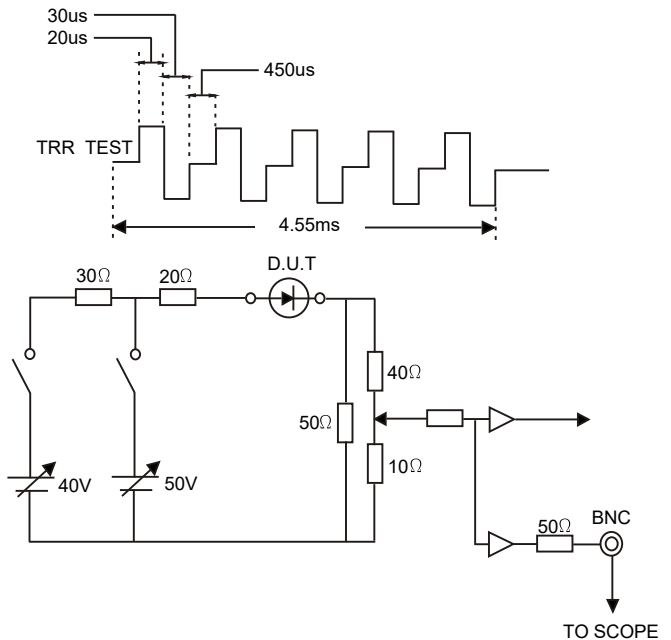


Figure 6 GR1 Test Circuit





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