Pb Free Plating Product

SFF2001GS thru SFF2008GS

20.0 Amperes Insulated Dual Series Connection Super Fast Recovery Rectifiers

Features

- ✶ Super fast switching for high efficiency
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

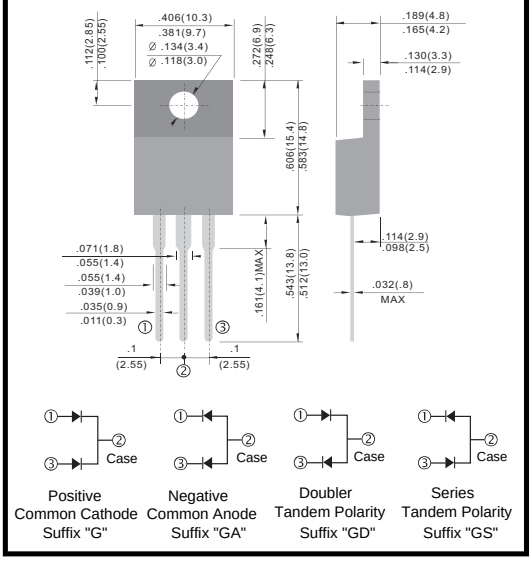
Application

- ✶ Automotive Inverters and Solar Inverters
- ✶ Plating Power Supply,SMPS and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ✶ Case: ITO-220AB full plastic isolated package
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity: As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 1.90 gram approximately

ITO-220AB/TO-220F-3L Unit : inch (mm)



Positive Common Cathode Suffix "G" | Negative Common Anode Suffix "GA" | Doubler Tandem Polarity Suffix "GD" | Series Tandem Polarity Suffix "GS"

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	SFF 2001 GS	SFF 2002 GS	SFF 2003 GS	SFF 2004 GS	SFF 2005 GS	SFF 2006 GS	SFF 2007 GS	SFF 2008 GS	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current	$I_{F(AV)}$	20								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150								A
Maximum instantaneous forward voltage (Note 1) @ 10 A	V_F	0.975				1.3		1.7		V
Maximum reverse current @ rated V_R T_J=25°C	I_R	10								μA
T_J=125°C		400								
Maximum reverse recovery time (Note 2)	t_{rr}	35								ns
Typical junction capacitance (Note 3)	C_J	90								pF
Typical thermal resistance	$R_{\theta JC}$	2.5								°C/W
Operating junction temperature range	T_J	- 55 to +150								°C
Storage temperature range	T_{STG}	- 55 to +150								°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

Note 3: Measured at 1 MHz and applied reverse voltage of 4.0 V DC.

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

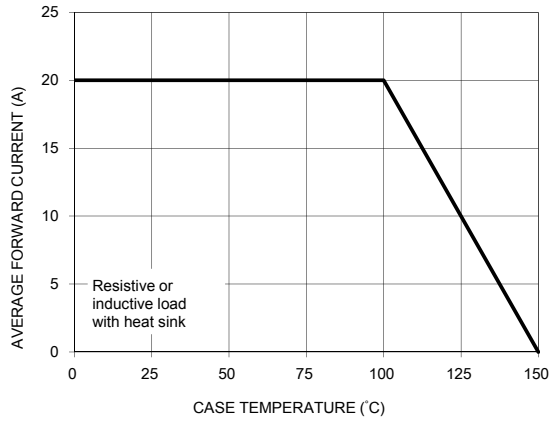


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

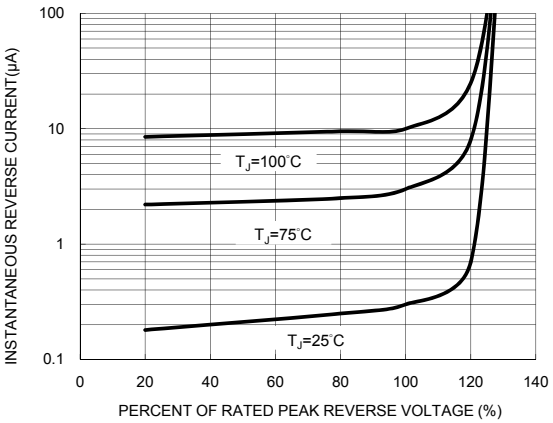


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

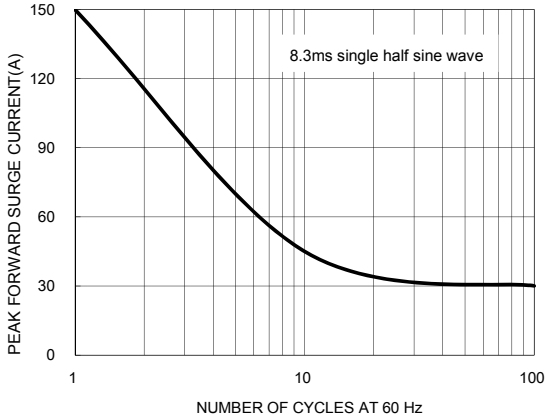


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

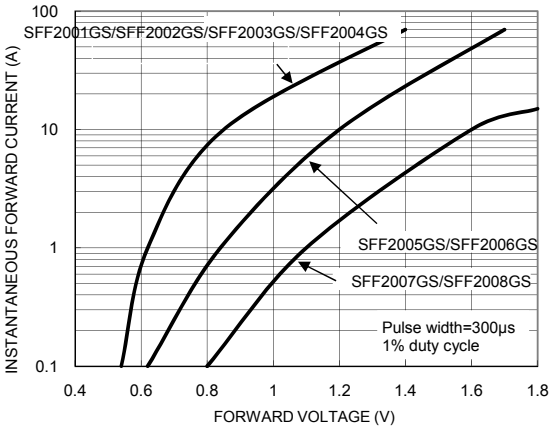


FIG. 5 TYPICAL JUNCTION CAPACITANCE

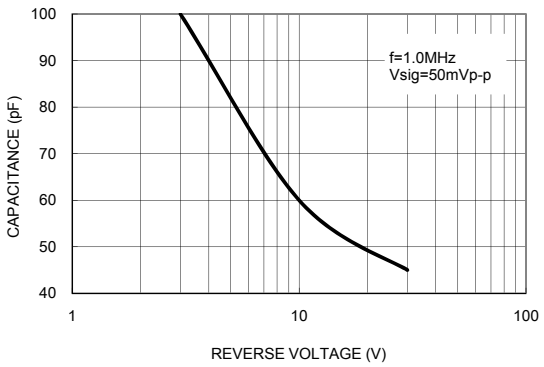


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM