

10A, 50V - 600V Isolated Glass Passivated Super Fast Rectifiers

FEATURES

- High efficiency, low VF.
- High current capability
- High reliability
- High surge current capability
- Low power loss.
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



MECHANICAL DATA

Case: ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

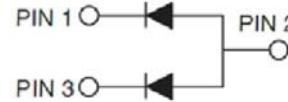
Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Mounting torque: 0.56 Nm max. (5 in-lbs. max.)

Weight: 1.8 g (approximately)



PARAMETER	SYMBOL	SFF	SFF	SFF	SFF	SFF	SFF	SFF	SFF	UNIT				
		1001	1002	1003	1004	1005	1006	1007	1008	GA				
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)}	10							A					
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	125							A					
Maximum instantaneous forward voltage (Note 1) I _F = 5A	V _F	0.975			1.3		1.7		V					
Maximum reverse current @ rated V _R T _J =25°C T _J =125°C	I _R	10 400							μA					
Maximum reverse recovery time (Note 2)	t _{rr}	35							ns					
Typical junction capacitance (Note 3)	C _J	70			50		pF							
Typical thermal resistance	R _{θJC}	8							°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: Reverse Recovery 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 4.0V DC.

ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
SFF100xGA (Note 1)	H	C0	G	ITO-220AB	50 / Tube

Note 1: "x" defines voltage from 50V (SFF1001GA) to 600V (SFF1008GA)

EXAMPLE

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SFF1008GAHC0	SFF1008GA	H	C0	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

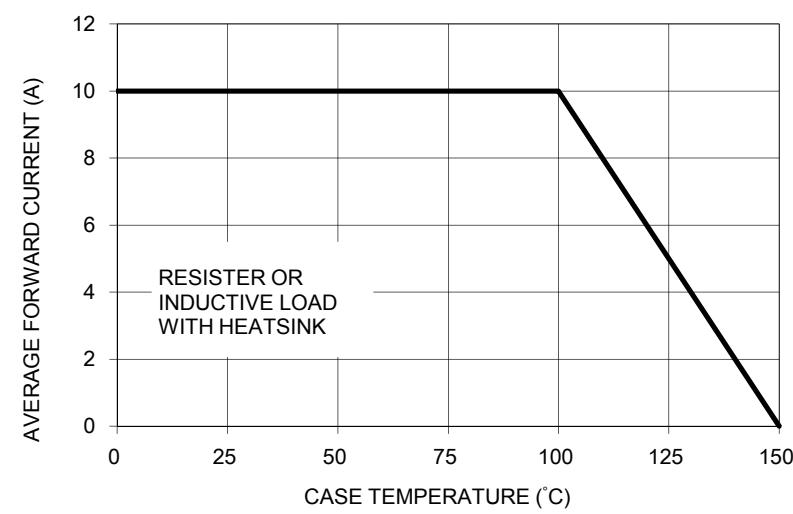
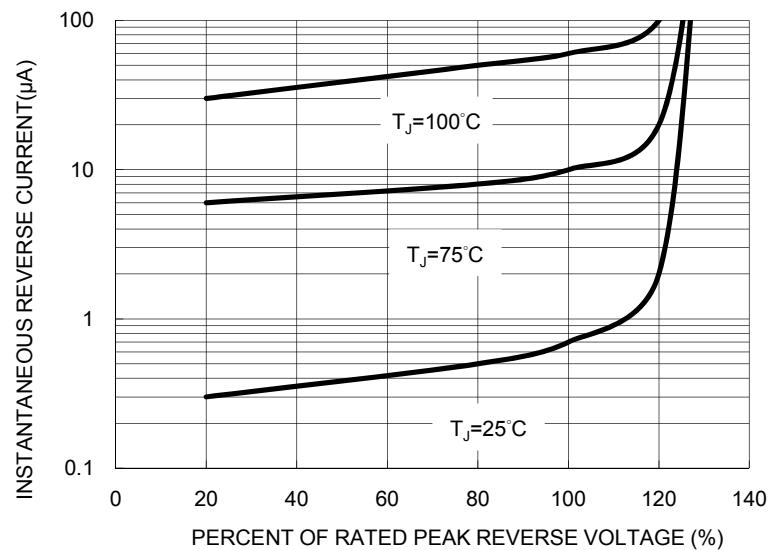
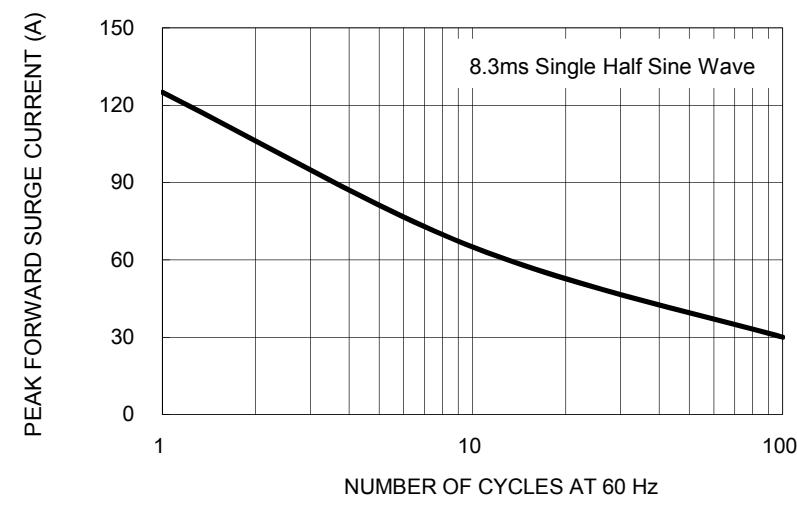
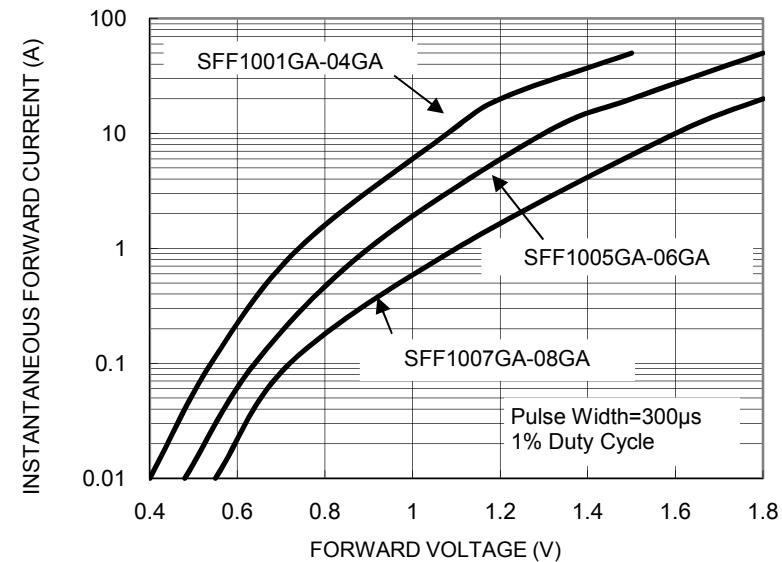
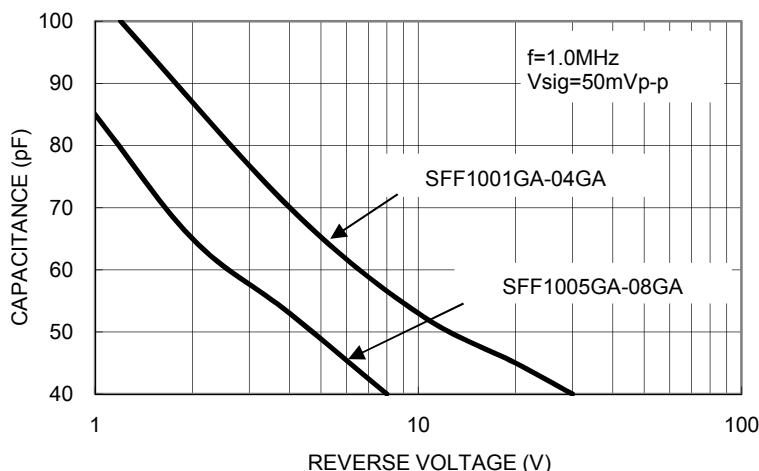
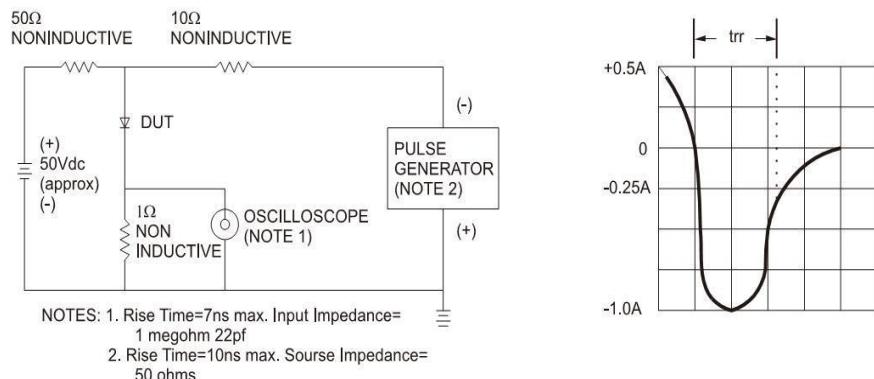
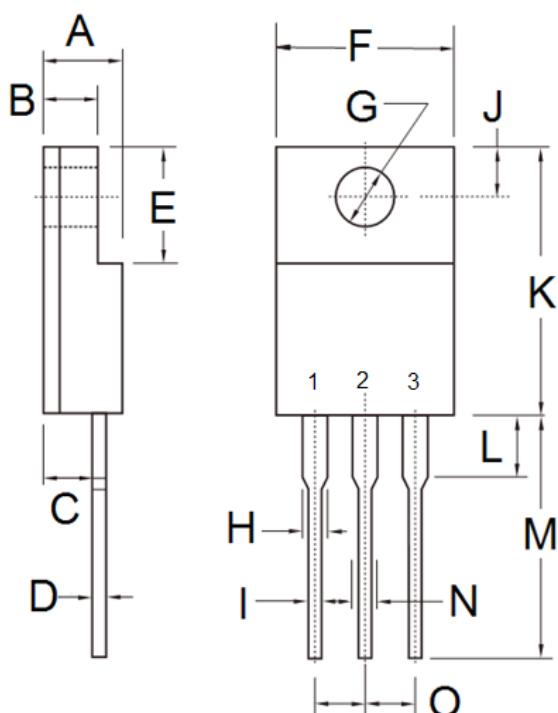
FIG.1 FORWARD CURRENT DERATING CURVE

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

PACKAGE OUTLINE DIMENSIONS
ITO-220AB


DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	2.30	2.96	0.091	0.117
D	0.46	0.76	0.018	0.030
E	6.30	6.90	0.248	0.272
F	9.60	10.30	0.378	0.406
G	3.00	3.40	0.118	0.134
H	0.95	1.45	0.037	0.057
I	0.50	0.90	0.020	0.035
J	2.40	3.20	0.094	0.126
K	14.80	15.50	0.583	0.610
L	-	4.10	-	0.161
M	12.60	13.80	0.496	0.543
N	-	1.80	-	0.071
O	2.41	2.67	0.095	0.105

MARKING DIAGRAM


P/N = Specific Device Code
G = Green Compound
YWW = Date Code
F = Factory Code

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