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20A, 50V - 600V Isolated Glass Passivated Super Fast Rectifiers

FEATURES

- High efficiency, low VF
- High current capability
- High surge current capability
- Low power loss
- UL Recognized File # E-326243
- 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. **Weight:** 1.82 g (approximately)

PIN 1 O PIN 2

ITO-220AB

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)										
		SFF	SFF	SFF	SFF	SFF	SFF	SFF	SFF	
PARAMETER	SYMBOL	2001	2002	2003	2004	2005	2006	2007	2008	UNIT
		G	G	G	G	G	G	G	G	
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			0				Α			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150				А				
Maximum instantaneous forward voltage (Note 1) @ 10 A	V _F	0.975 1.3 1.7					.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}	90						pF		
Typical thermal resistance	$R_{ heta JC}$	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.



ORDERING INFORMATION							
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX ^(*)	PACKAGE	PACKING		
SFF200xG (Note 1)	Н	C0	G	ITO-220AB	50 / Tube		

Note 1: "x" defines voltage from 50V (SFF2001G) to 600V (SFF2008G)

^{*:} Optional available

EXAMPLE								
EXAMPLE P/N	PLE P/N PART NO. SUFFIX PAC		PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION			
SFF2008GHC0G	SFF2008G	н	CO	G	AEC-Q101 qualified Green compound			

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

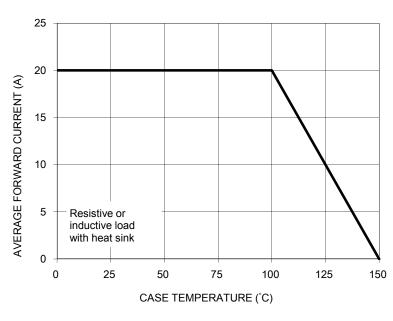
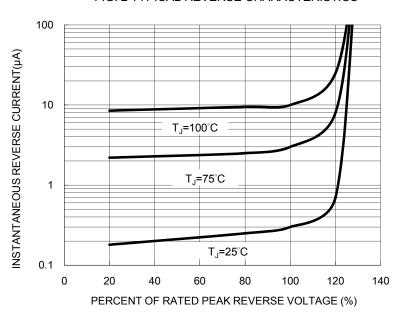
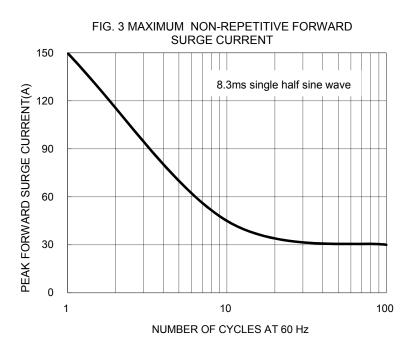
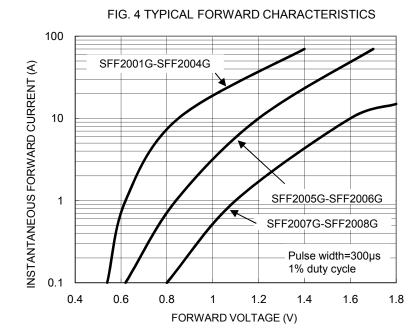


FIG. 2 TYPICAL REVERSE CHARACTERISTICS







Version: H1511



FIG. 5 TYPICAL JUNCTION CAPACITANCE

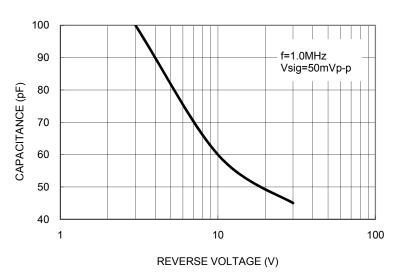
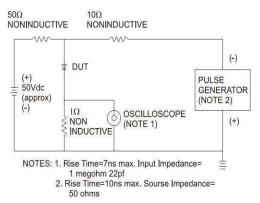
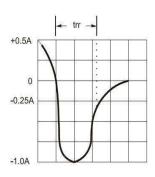
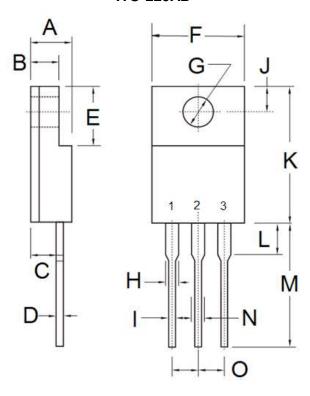


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





PACKAGE OUTLINE DIMENSIONS ITO-220AB



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	4.30	4.70	0.169	0.185		
В	2.50	3.16	0.098	0.124		
С	2.30	2.96	0.091	0.117		
D	0.46	0.76	0.018	0.030		
Е	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		
Н	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		
М	12.60	13.80	0.496	0.543		
N	-	1.80	-	0.071		
0	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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Version: H1511