

# 20A, 50V - 1000V Glass Passivated Bridge Rectifiers

## FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical  $I_{\text{R}}$  less than 0.1 $\mu\text{A}$
- High surge current capability
- 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: TS-6P

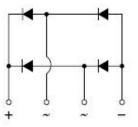
Molding compound, UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test **Polarity:** Polarity as marked on the body **Mounting torque:** 8.17 in-lbs maximum **Weight:** 7.15 g (approximately)











MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)									
PARAMETER	SYMBOL	TS20P	TS20P	TS20P	TS20P	TS20P	TS20P	TS20P	UNIT
FARAMETER	STINBUL	01G	02G	03G	04G	05G	06G	07G	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	20				А			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	250				А			
Rating for fusing (t<8.3ms)	l <sup>2</sup> t				259				A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) @ 10 A @ 20 A	V <sub>F</sub>	1.0 1.1				V			
Maximum reverse current @ rated $V_R$ T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	10 500				μA			
Typical thermal resistance	R <sub>θJC</sub>				0.8				°C/W
Operating junction temperature range	TJ	- 55 to +150			°C				
Storage temperature range	T <sub>STG</sub>			-	55 to +15	50			°C

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



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ORDERING INFORMATION						
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING	
TS20P0xG (Note 1)	Н	C2		TS-6P	15 / TUBE	
		X0	G	TS-6P	Forming	
		D2		TS-6P	15 / TUBE (Auto)	

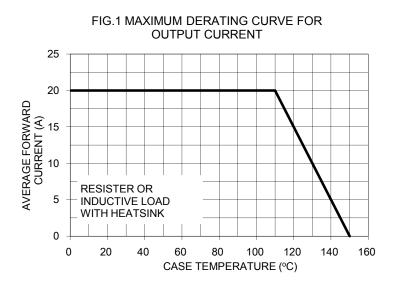
Note 1: "x" defines voltage from 50V (TS20P01G) to 1000V (TS20P07G)

\*: Optional available

EXAMPLE							
PREFERRED PART NO.			PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION		
TS20P07GHC2G	TS20P07G	Н	C2	G	AEC-Q101 qualified Green compound		

# **RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)



#### FIG. 3 TYPICAL REVERSE CHARACTERISTICS

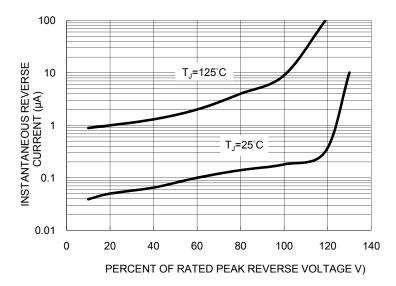
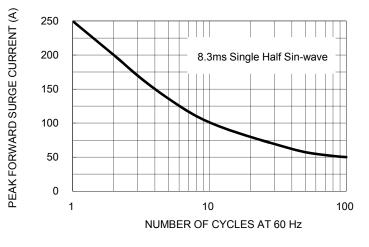


FIG. 2 MAXIMUM FORWARD SURGE CURRENT





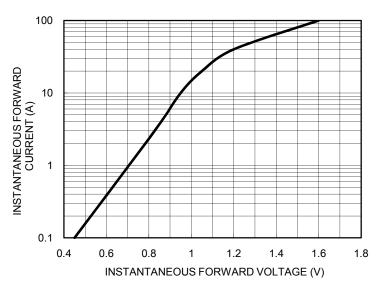
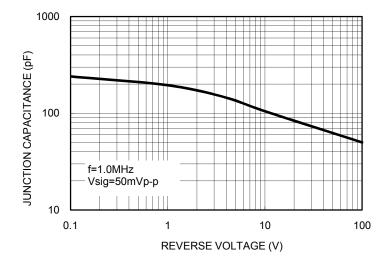


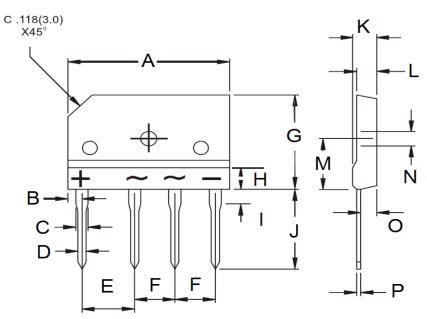


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS





DIM.	Unit	(mm)	Unit (inch)			
DIN.	Min	Min Max		Max		
А	29.70	30.30	1.169	1.193		
В	2.30	2.70	0.091	0.106		
С	2.00	2.40	0.079	0.094		
D	0.90	1.10	0.035	0.043		
E	9.80	10.20	0.386	0.402		
F	7.30	7.70	0.287	0.303		
G	19.70	20.30	0.776	0.799		
Н	-	4.80	-	0.189		
Ι	3.80	4.20	0.150	0.165		
J	17.00	18.00	0.669	0.709		
К	4.40	4.80	0.173	0.189		
L	3.40	3.80	0.134	0.150		
М	10.80	11.20	0.425	0.441		
Ν	3.10	3.40	0.122	0.134		
0	2.50	2.90	0.098	0.114		
Р	0.65	0.75	0.026	0.030		

## MARKING DIAGRAM



- = Specific Device Code
- = Green Compound

YWW = Date Code

P/N

G

F

= Factory Code



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