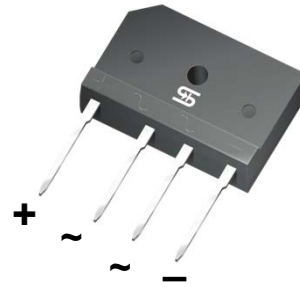


## 20A, 50V - 1000V Glass Passivated Bridge Rectifiers

### FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- Typical  $I_R$  less than 0.1 $\mu$ 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



TS-6P



### 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)

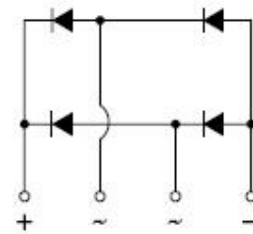
**Terminal:** Matte tin plated leads, solderable per JESD22-B102

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 ( $T_A=25^\circ\text{C}$ unless otherwise noted)									
PARAMETER	SYMBOL	TS20P01G	TS20P02G	TS20P03G	TS20P04G	TS20P05G	TS20P06G	TS20P07G	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	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	$I_{FSM}$	250							A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	259							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage (Note 1) @ 10 A @ 20 A	$V_F$	1.0 1.1							V
Maximum reverse current @ rated $V_R$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
Typical thermal resistance	$R_{\theta JC}$	0.8							$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 to +150							$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 to +150							$^\circ\text{C}$

Note 1: Pulse test with  $PW=300\mu\text{s}$ , 1% duty cycle

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
TS20P0xG (Note 1)	H	C2	G	TS-6P	15 / TUBE
		X0		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.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS20P07GHC2G	TS20P07G	H	C2	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

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

FIG.1 MAXIMUM DERATING CURVE FOR OUTPUT CURRENT

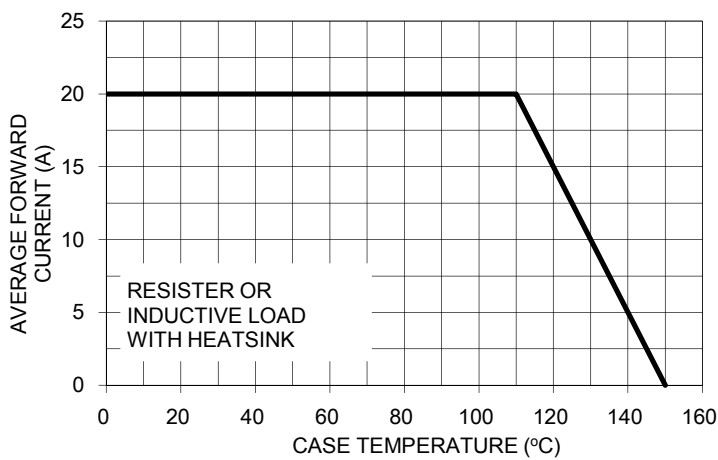


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

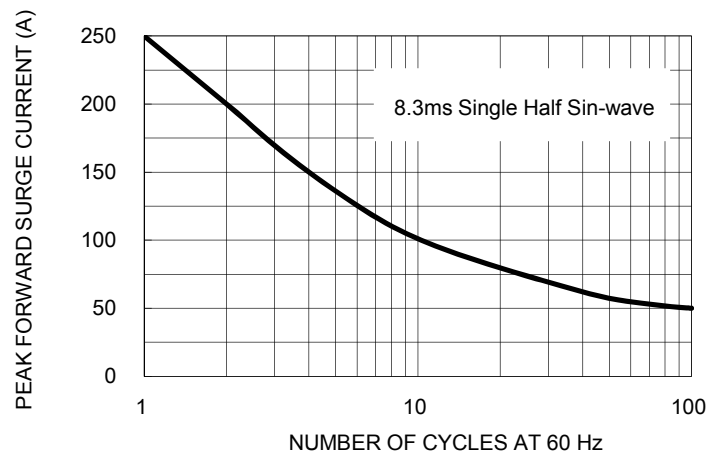


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

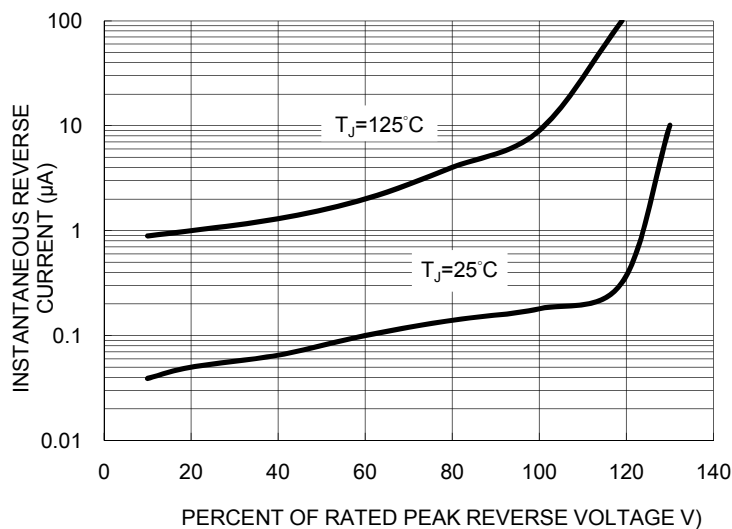


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

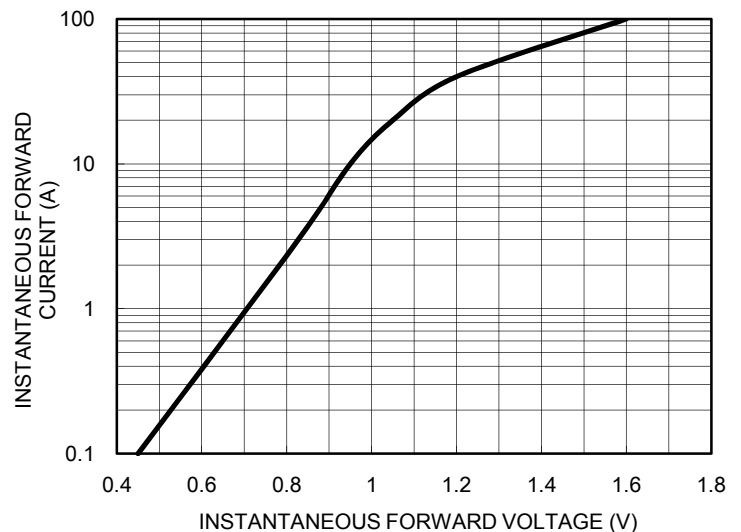
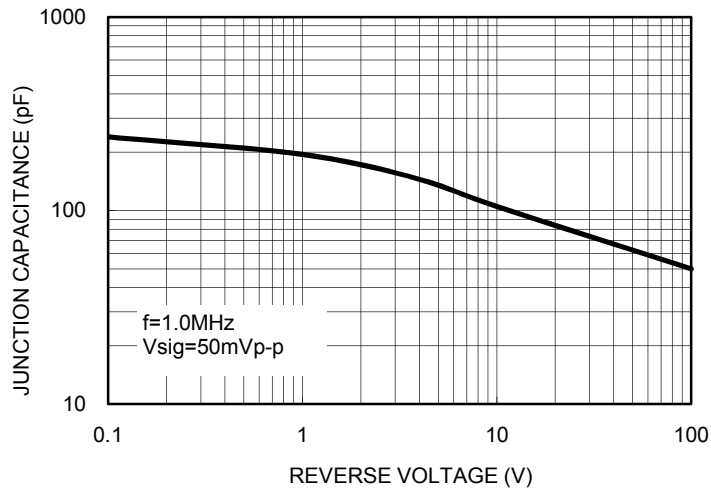
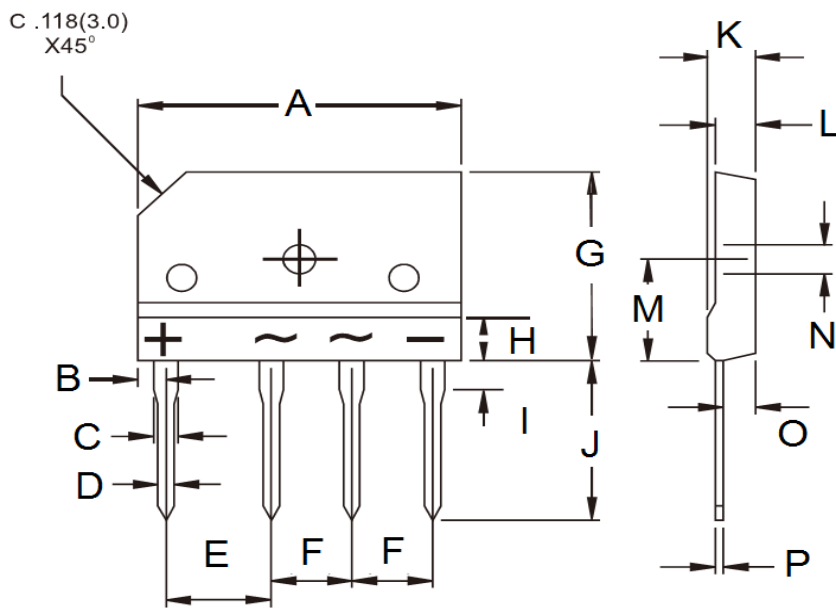


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

**TS-6P**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	29.70	30.30	1.169	1.193
B	2.30	2.70	0.091	0.106
C	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
H	-	4.80	-	0.189
I	3.80	4.20	0.150	0.165
J	17.00	18.00	0.669	0.709
K	4.40	4.80	0.173	0.189
L	3.40	3.80	0.134	0.150
M	10.80	11.20	0.425	0.441
N	3.10	3.40	0.122	0.134
O	2.50	2.90	0.098	0.114
P	0.65	0.75	0.026	0.030

MARKING DIAGRAM



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

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