YEA SHIN TECHNOLOGY CO., LTD

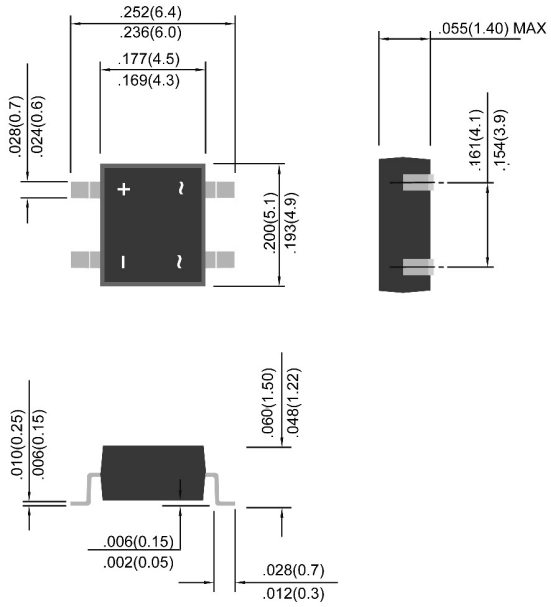
TB12S THRU TB110S

Thin Mini-Dip Surface Mount Schottky Bridge Rectifiers
20 to 100 Voltage 1.0 Ampere Current

Features

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Surge overload rating-- 30 amperes peak
  Ideal for printed circuit board
  Exceeds environmental standards of MIL-S-19500
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request
  High temperature soldering guaranteed:
- 260℃/10 seconds /0.375"(9.5mm) lead length at 5 lbs., (2.3kg) tension

Thin Mini-Dip (THIN MD)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic body
- Terminal: Pure tin plated, lead free, Leads solderable per MIL-STD-202 Method 208
- Mounting position : as Marking

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, Resistive or inductive load.
For capacitive load, derate current by 20%

	SYMBOLS	TB12S	TB14S	TB16S	TB18S	TB110S	UNITS
Marking Code		TB12S	TB14S	TB16S	TB18S	TB110S	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	28	42	56	71	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	V
Maximum Average Forward Rectified Current at TL (See figure 1)	$I_{(AV)}$	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0					A
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V_F	0.50		0.70	0.85		V
Maximum DC Reverse Current (Note 1) Ta= 25°C at Rated DC Blocking Voltage Ta=100°C	I_R	0.5 10.0					mA
Maximum Thermal Resistance (Note2)	$R_{\theta JL}$ $R_{\theta JA}$	20.0 80.0					°C/W
Operating and Storage Temperature Range	T_J	-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150					°C

NOTES:

1. * R-load on alumina subtrate Ta=25℃
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5"(13 X 13mm) copper pads

DEVICE CHARACTERISTICS

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Fig. 1 - Forward Current Derating Curve

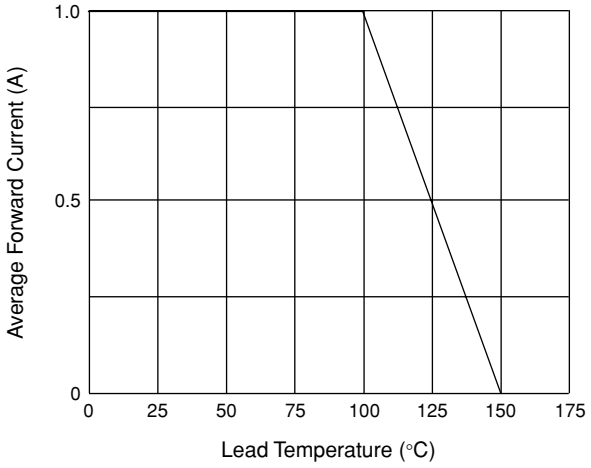


Fig. 2 - Forward Characteristics

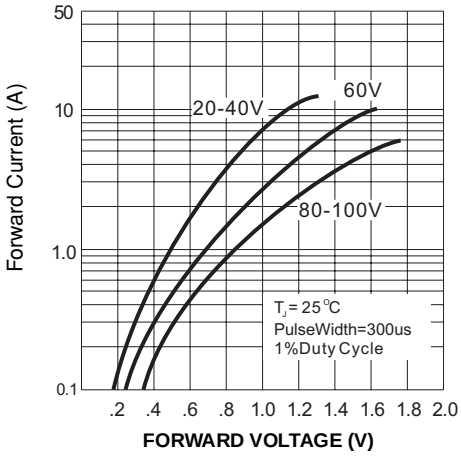


Fig. 3 - Non-Repetitive Surge Current

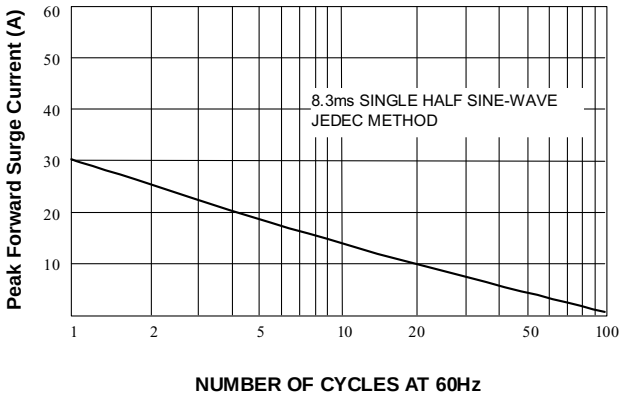
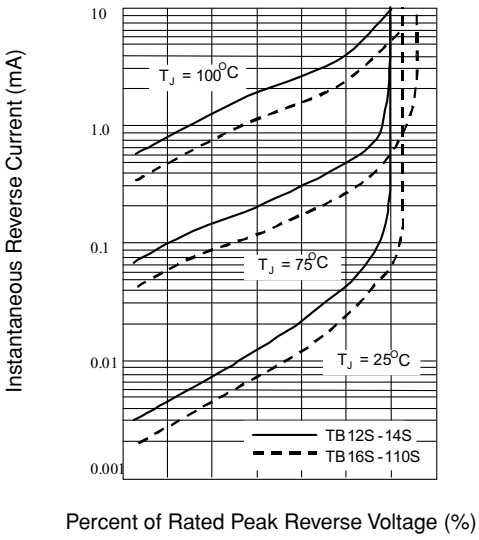
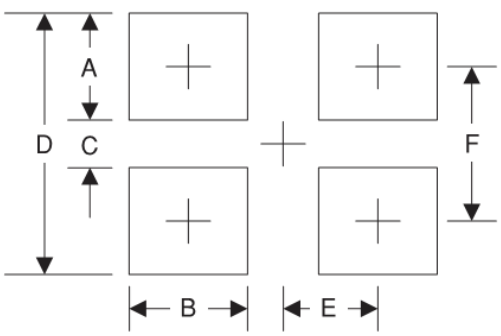


Fig. 4 - Typical Reverse Characteristics



Suggested PAD Layout



Symbol	Unit(mm)
A	1.5
B	0.9
C	4.22
D	7.22
E	2.05
F	5.72