ZV ELECTRONIC CORP.

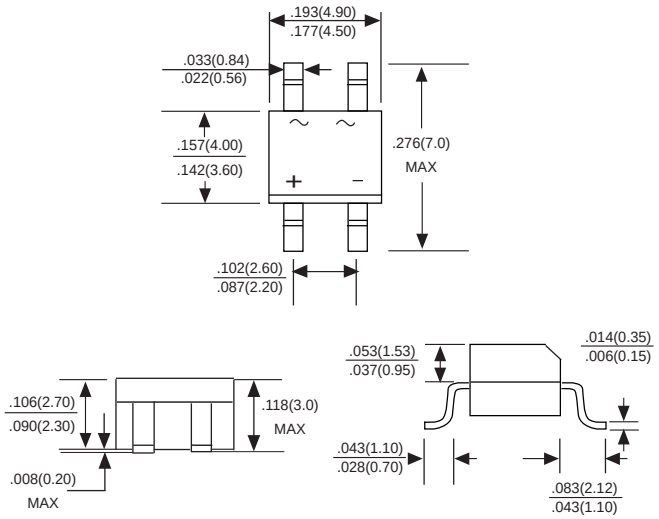
MB14S thru MB120S

1.0 A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 40 to 200V

Schottky Surface Mount Flat Bridge Rectifier

MBS



Dimensions in inches and (millimeters)

FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260℃/10 seconds at 5 lbs., (2.3kg) tension
- Small size, simple installation
- High surge current capability

MECHANICAL DATA

Case: Molded plastic body
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on case
Mounting Position: Any
Weight:0.008 ounce, 0.22 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave 60Hz,resistive or inductive load,for current capacitive load, derate by 20%.

Catalog Number	Symbol	MB14S	MB16S	MB18S	MB110S	MB120S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	80	100	200	V
Maximum RMS voltage	V_{RMS}	28	42	56	70	140	V
Maximum DC blocking voltage	V_{DC}	40	60	80	100	200	V
Maximum average forward rectified current 0.2×0.2"(5.0×5.0mm)copper pad area	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30					A
Maximum instantaneous forwad voltage at 1.0A	V_F	0.55	0.70	0.85	0.90		V
Maximum DC reverse current T_A = 25 ℃ at Rated DC blocking voltage T_A = 100℃	I_R	0.3 10		0.2 5	0.1 2		mA
Typical Junction Capacitance at 4.0V,1.0MHz	C_J	110	80				pF
Typical Thermal resistance (Note1)	$R_{\theta JA}$ $R_{\theta JL}$	100 20					℃/ W
Operating junction temperature range	T_J	–55 to +125					℃
Storage temperature range	T_{STG}	– 55 to +150					℃

Note：1.Thermal resistance from junction to ambient and from junction to lead P.C.B.mounted on 0.2×0.2"(5.0×5.0mm)copper pad areas.

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Fig.1 Forward Current Derating Curve

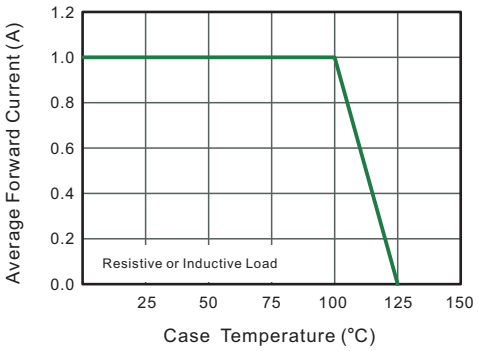


Fig.2 Typical Reverse Characteristics

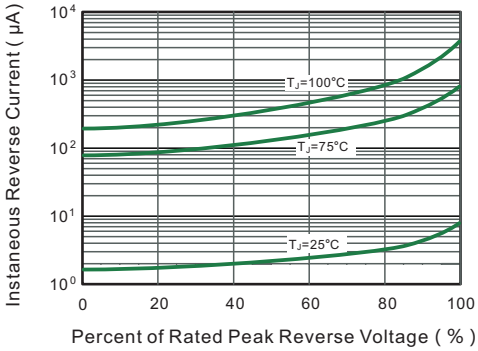
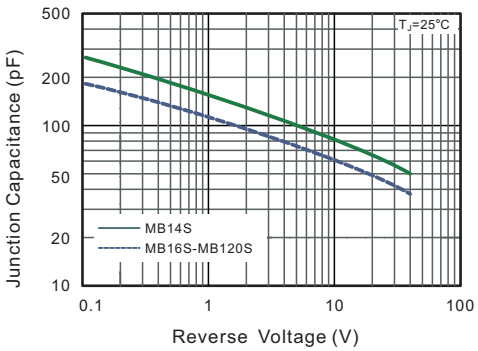


Fig.4 Typical Junction Capacitance



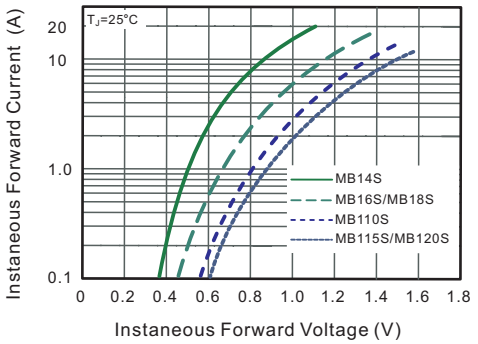


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

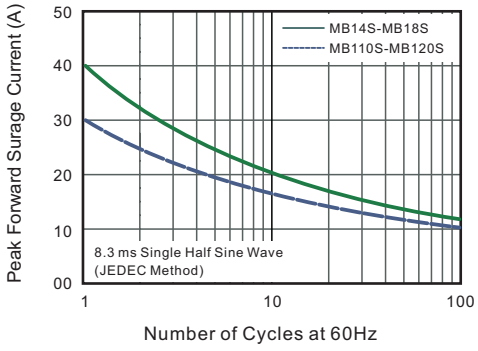
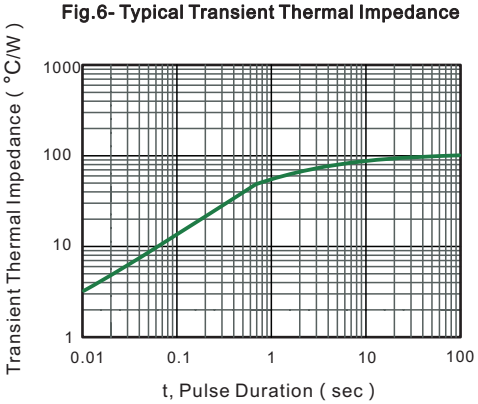


Fig.6- Typical Transient Thermal Impedance



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!