

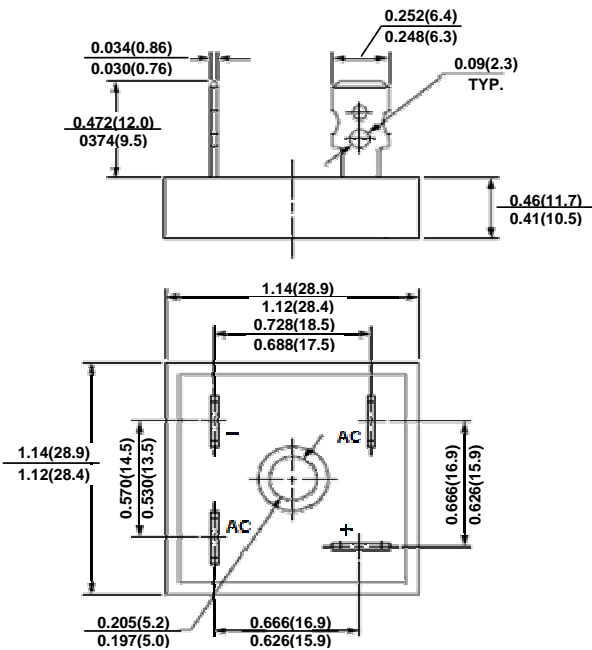


KBPC15005 THRU KBPC1510

Single Phase 15.0 AMPS. Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts Forward Current - 15.0 Ampere

MB-35



FEATURES

- ◆ High surge forward current capability
- ◆ Plastic material has underwriters laboratory flammability classification 94V-0
- ◆ Mounting position:Any

MECHANICAL DATA

Case: Metal shell and molded plastic

Lead: solder plated

Polarity: As marked

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 current derate by 20%.

PARAMETER	SYMBOLS	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 15010	UNITS
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
Minimum DC Breakdown Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current With heatsink $T_c = 55^\circ\text{C}$	$I_{F(AV)}$	15							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300							A
Maximum Instantaneous Forward Voltage @ 7.5A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ rated DC blocking voltage per leg $T_A = 125^\circ\text{C}$	I_R	10.0 500							μA
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	2.3							$^\circ\text{C/W}$
I^2t Rating for fusing ($t < 8.3\text{ms}$)	I^2t	375							A^2S
Mounting Torque (Note 3)	T_{OR}	20							kg·cm
Dielectric Strength at Terminals to case · AC 1 minute	V_{dis}	2.5							KV
Operating Temperature Range	T_J	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Note:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
 2. Between junction and case, With heatsink
 3. Recommend torque : 10kg·cm



KBPC15005 THRU KBPC1510

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

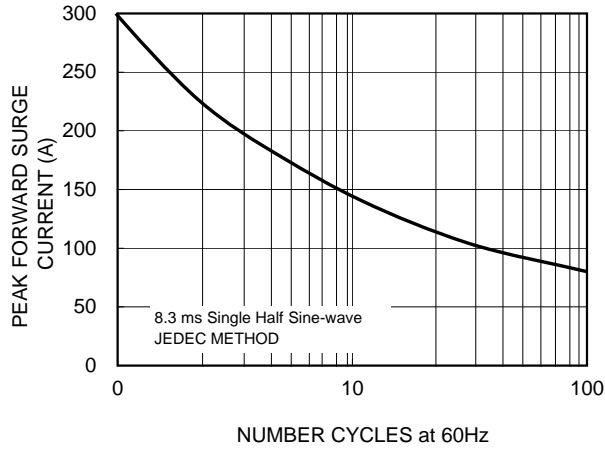


FIG. 2 MAXIMUM FORWARD CURRENT DERATING CURVE

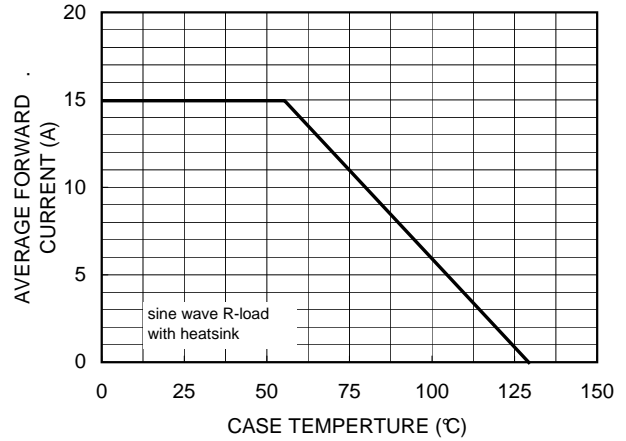


FIG. 3-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

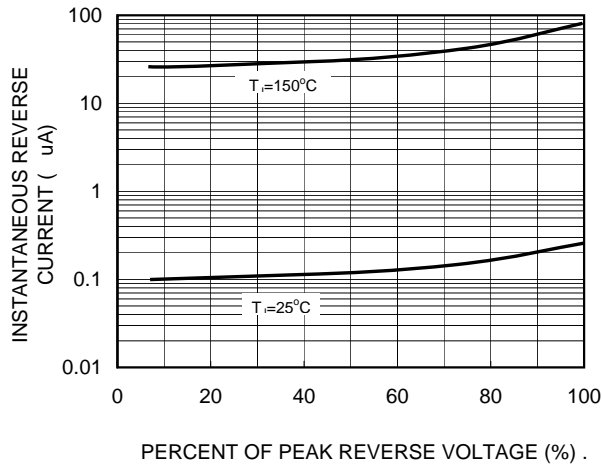


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

