



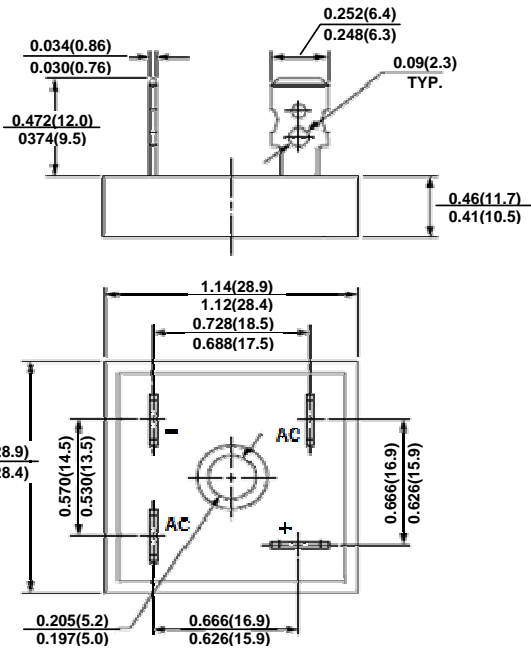
KBPC25005 THRU KBPC2510

Single Phase 25.0 AMPS. Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts Forward Current - 25.0 Ampere

MB-35

FEATURES



- ◆ UL Recognized File#230084
- ◆ 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

Dimensions in inches and (millimeters)

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 25005	KBPC 2501	KBPC 2502	KBPC 2504	KBPC 2506	KBPC 2508	KBPC 25010	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 $T_c = 55^\circ C$	$I_{F(AV)}$	25							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	400							A
Maximum Instantaneous Forward Voltage @ 12.5A	V_F	1.1							V
Maximum DC Reverse Current @ $T_A = 25^\circ C$ rated DC blocking voltage per leg @ $T_A = 125^\circ C$	I_R	10.0 500							μA
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	1.4							$^\circ C/W$
I^2t Rating for fusing ($t < 8.3ms$)	I^2t	660							A^2S
Mounting Torque (Note 2)	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							$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

Note: 1. Between junction and case, With heatsink
2. Recommend torque : 10kg·cm



KBPC25005 THRU KBPC2510

RATINGS AND CHARACTERISTIC CURVES

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

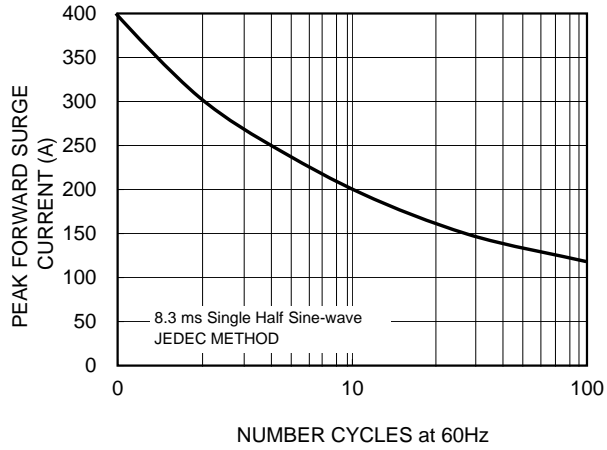


FIG. 2 MAXIMUM FORWARD CURRENT DERATING CURVE

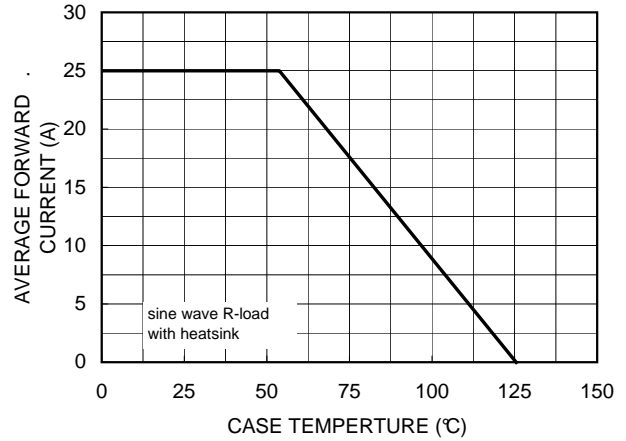


FIG. 3-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

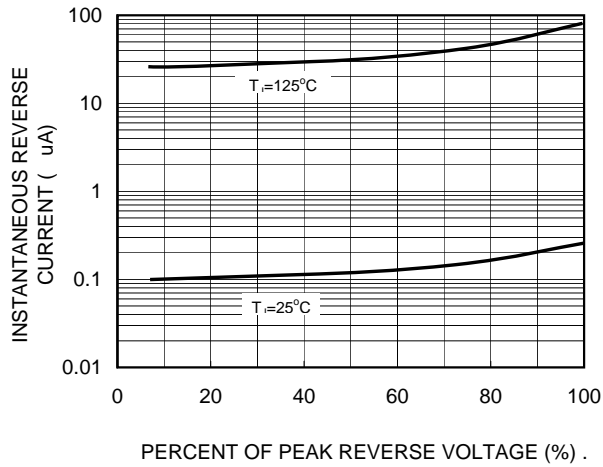


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

