

KBPC3500 - KBPC3510

PRV : 50 - 1000 Volts

Io : 35 Amperes

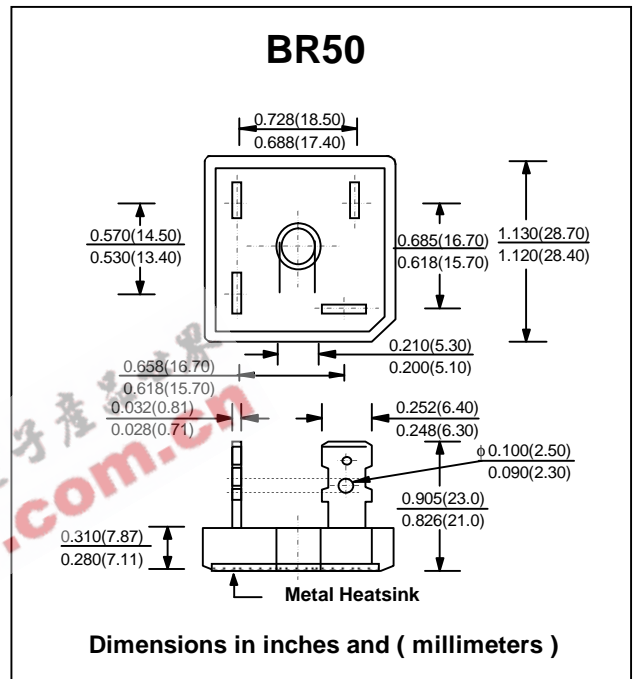
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Metal Case
- * Epoxy : UL94V-O rate flame retardant
- * Terminals : plated .25" (6.35 mm). Faston
- * Polarity : Polarity symbols marked on case
- * Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
- * Weight : 17.1 grams

SILICON BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	KBPC 3500	KBPC 3501	KBPC 3502	KBPC 3504	KBPC 3506	KBPC 3508	KBPC 3510	UNIT
Maximum Recurrent 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 Current $T_c = 55^\circ C$	$I_{F(AV)}$	35							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	400							A
Current Squared Time at $t < 8.3$ ms.	$I^2 t$	660							$A^2 S$
Maximum Forward Voltage per Diode at $I_F = 17.5$ A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10							μA
	$I_{R(H)}$	200							μA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.5							$^\circ C/W$
Typical Thermal Resistance at Junction to Ambient	$R_{\theta JA}$	10							$^\circ C$
Operating Junction Temperature Range	T_J	- 40 to + 150							$^\circ C$
Storage Temperature Range	T_{STG}	- 40 to + 150							$^\circ C$

Note :

1. Thermal Resistance from junction to case with units mounted on a 7.5" x 3.5" x 4.6" (19cm.x 9cm.x 11.8cm.) Al.-Finned Plate

RATING AND CHARACTERISTIC CURVES (KBPC3500 - KBPC3510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

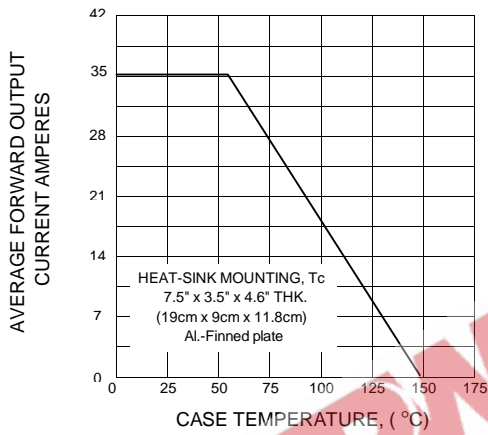


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

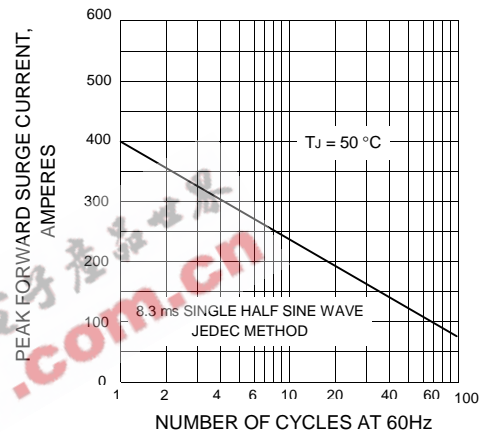


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

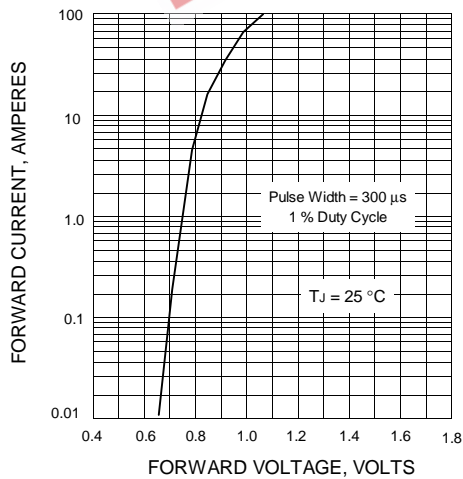


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

