

KBPC3500 - KBPC3510

SILICON BRIDGE RECTIFIERS

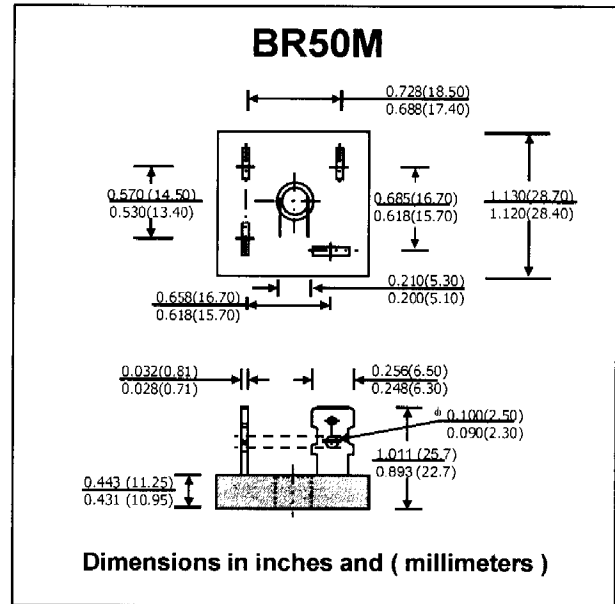
PRV : 50 - 1000 Volts
Io : 35 Amperes

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-0 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

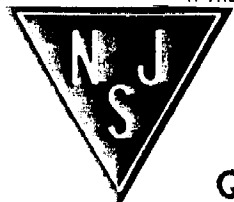
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

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 °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 T _a = 25 °C at Rated DC Blocking Voltage T _a = 100 °C	I _R				10				μA
	I _{R(H)}				200				μA
Typical Thermal Resistance (Note 1)	R _{θJC}				1.5				°C/W
Typical Thermal Resistance at Junction to Ambient	R _{θJA}				10				°C
Operating Junction Temperature Range	T _J				- 40 to + 150			°C	
Storage Temperature Range	T _{STG}				- 40 to + 150			°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

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RATING AND CHARACTERISTIC CURVES (KBPC3500 - KBPC3510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

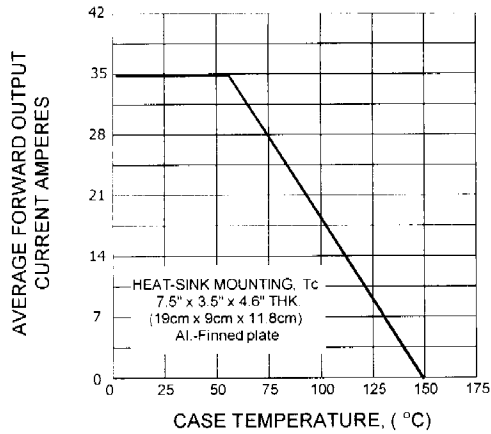


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

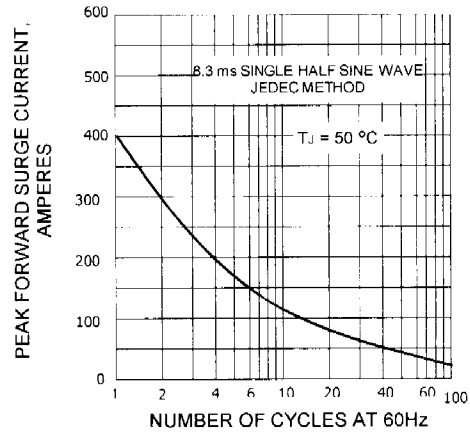


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

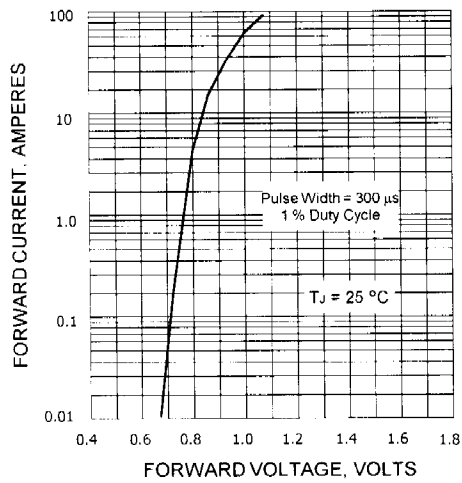


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

