

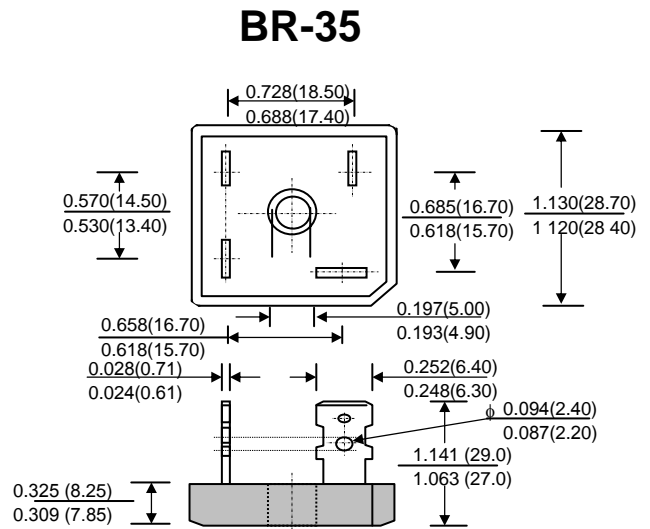


### Features

- ✧ 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 : 15.6 grams



**Dimensions in inches and ( millimeters )**

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

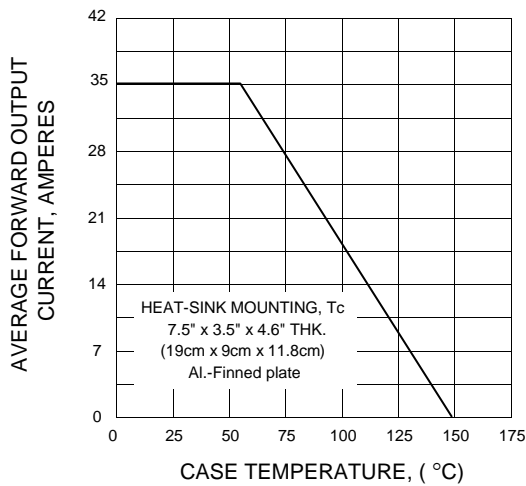
For capacitive load, derate current by 20%.

RATING	SYMBOL	GBPC 3500	GBPC 3501	GBPC 3502	GBPC 3504	GBPC 3506	GBPC 3508	GBPC 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 $T_c = 55^\circ\text{C}$	$I_{F(AV)}$	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.	$I^2t$	660							$\text{A}^2\text{S}$
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							$\mu\text{A}$
	$I_{R(H)}$	200							$\mu\text{A}$
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.5							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance at Junction to Ambient	$R_{\theta JA}$	10							$^\circ\text{C}$
Operating Junction Temperature Range	$T_J$	- 40 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 40 to + 150							$^\circ\text{C}$

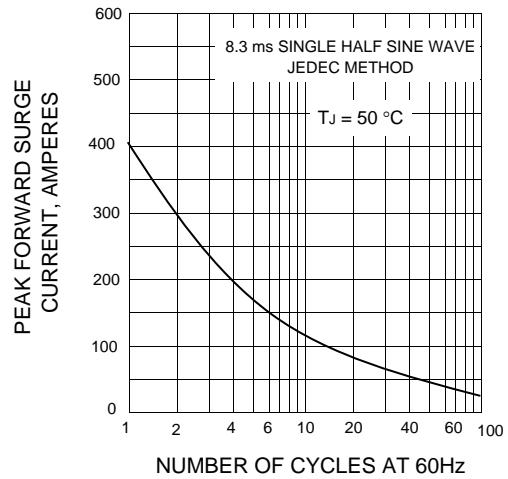
**Note :** (1) Thermal Resistance from junction to case with units mounted on a 7.5" x 3.5" x 4.6" (19cm.x 9cm.x 11.8cm.) Al.-Finned Plate

## RATING AND CHARACTERISTIC CURVES ( KBPC3500 - KBPC3510 )

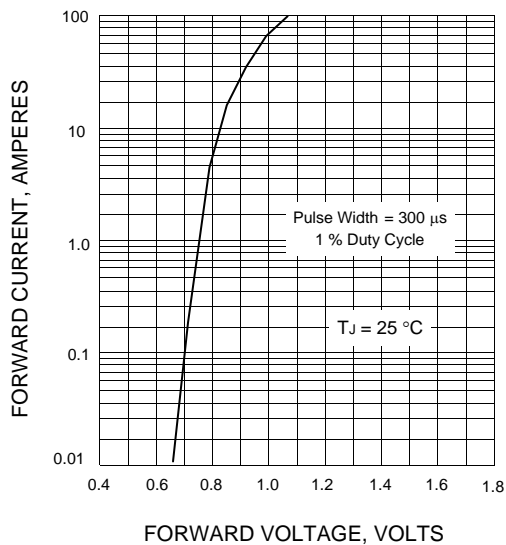
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**

