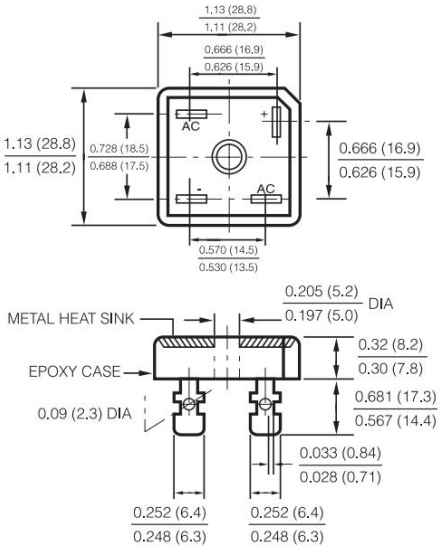
GBPC3501 THRU GBPC3510

VOLTAGE RANGE 100to 1000 Volts
CURRENT 35 Ampere

RoHS COMPLIANT

Features

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- The plastic material has UL flammability classification 94V-0
- Electrically isolated base-2500 Vlots



Mechanical Data

- Case: Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity: As marked on Body
- Mounting: Hole for # 10 screw
- Weight: 0.13 ounce, 3.66 gram

Maximum Ratings and Electrical Characteristics

- Ratings at 25℃ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

TYPE NUMBER		SYMBOLS	GBPC 3501	GBPC 3502	GBPC 3504	GBPC 3506	GBPC 3508	GBPC 3510	UNIT
Maximum Reverse Peak Repetitive Voltage		V_{RRM}	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, at $T_C = T_A$		$I_{(AV)}$	35						Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load		I_{FSM}	450						Amps
Rating for Fusing (t < 8.3ms) (Note1)		I^2t	840						A^2s
Maximum Instantaneous Forward Voltage drop Per Bridge element 17.5A		V_F	1.1						Volts
Maximum Reverse Current at rated DC blocking voltage per element	TA=25℃	I_R	5.0						μAmps
	TA=125℃		500						
Typical Junction Capacitance Per Element (Note2)		C_J	300						pF
Typical Thermal Resistance (NOTE 3)		$R_{\Theta JC}$	1.2						℃/W
Operating Temperature Range		T_J	-55 to +150						℃
Storage Temperature Range		T_{STG}	-55 to +150						℃

Notes:

1. Measured at non-repetitive,for greater than 1ms and less than 8.3ms.
2. Measured at 1.0MHz and applied reverse voltage of 1.0V DC.
3. Device mounted on 300mm×300mm×1.6mm Cu Plate Heatsink.

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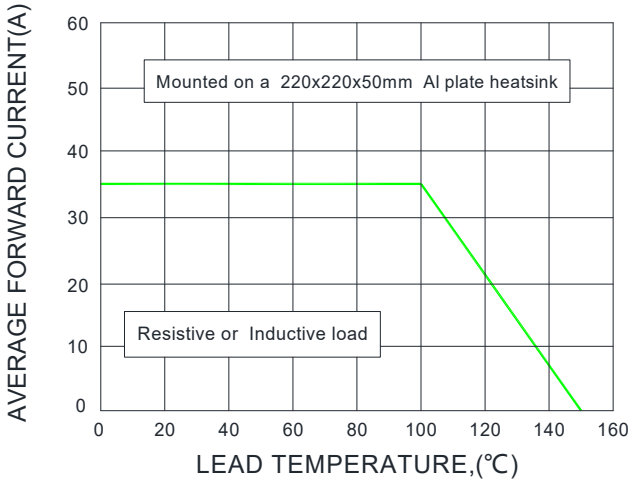
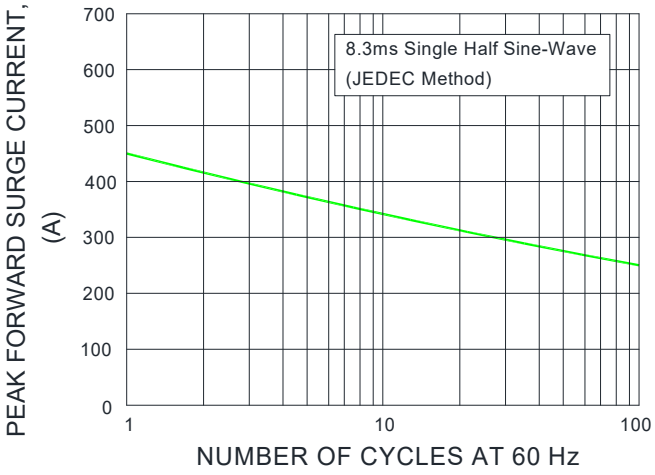
Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

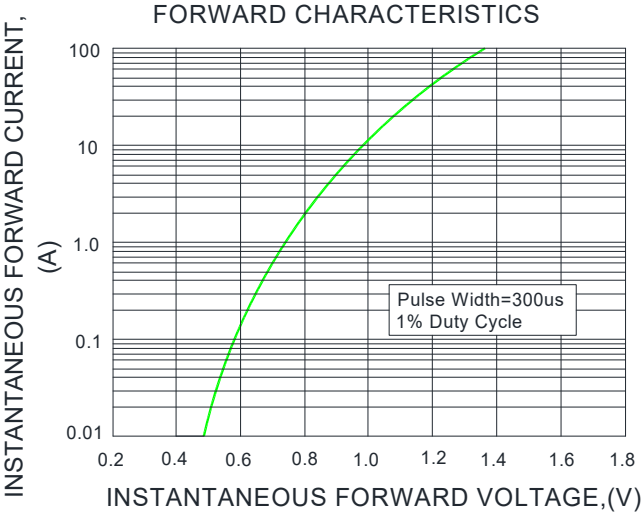
F1G.1-FORWARD CURRENT DERATING CURVE



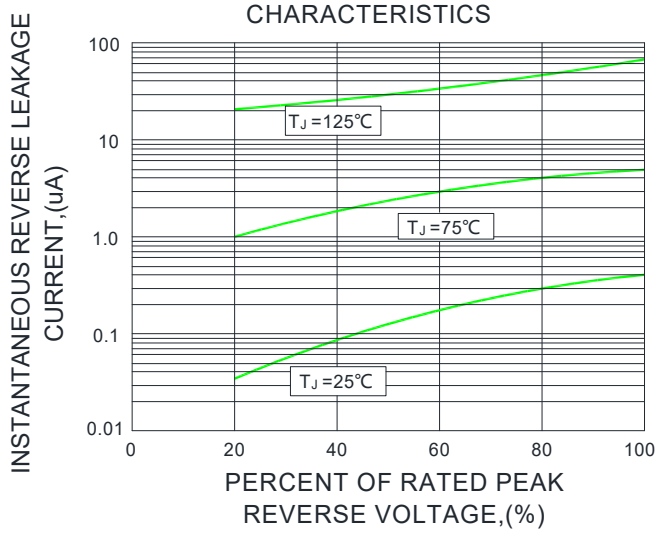
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



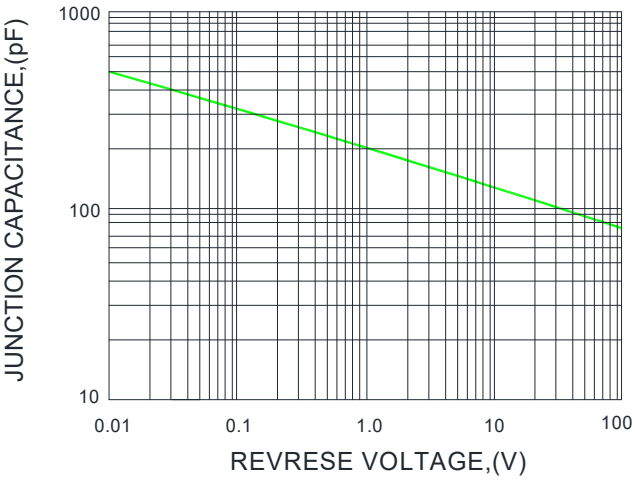
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



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