

GBPC3506T/W thru GBPC3510T/W

Single Phase Glass Passivated Silicon Bridge Rectifier

Features

• Integrally molded heat sink provides low thermal resistance for maximum heat dissipation

- High surge current capability
- Universal 3-way terminals: snap on, wire-around, or P.C
- board mounting
- High temperature soldering guaranteed: 260°C/ 10
- seconds at 5 lbs (2.3 kg) tension
- Not ESD Sensitive

Mechanical Data

Case: Molded plastic with heat sink integrally mounted in the bridge encapsulation

Terminals: Either nickel plated 0.25". Faston lugs or copper leads 0.040" diameter.

Polarity: Polarrity symbols marked on the body

Mounting position: Bolt down on heat-sink with silicone thermal

compound between bridge and mounting surface

Weight: 15 grams or 0.53 ounces

Mounting torque: 20 inch-lbs max

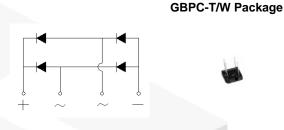
Maximum ratings at Tc = 25 °C, unless otherwise specified (GBPCXXXXT uses GBPC-T package while GBPCXXXXW uses GBPC-W package)

Parameter	Symbol	Conditions	GBPC3506T/W	GBPC3508T/W	GBPC3510T/W	Unit
Repetitive peak reverse voltage	e V _{RRM}		600	800	1000	V
RMS reverse voltage	V _{RMS}		420	560	700	V
DC blocking voltage	V _{DC}		600	800	1000	V
Operating temperature	Tj		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T _{stg}		-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics at Tc = 25 °C, unless otherwise specified

Single phase, half sine wave, 60 Hz, resistive or inductive load For capacitive load derate current by 20%

Parameter	Symbol	Conditions	GBPC3506T/W	GBPC3508T/W	GBPC3510T/W	Unit
Maximum average forward rectified current	Ι _ο	$T_c = 50 \ ^{\circ}C$	35.0	35.0	35.0	А
Peak forward surge current	I _{FSM}	single sine-wave	400	400	400	А
Maximum instantaneous forward voltage drop per leg	V_{F}	I _F = 17.5 A	1.1	1.1	1.1	V
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	T _a = 25 °C	5	5	5	μΑ
		T _a = 125 °C	500	500	500	
Rating for fusing	l ² t	1 ms < t _m < 8.3 ms	660	660	660	A ² sec
RMS isolation voltage from case to leads	V _{ISO}		2500	2500	2500	V
Typical junction capacitance	Cj		300	300	300	pF
Typical thermal resistance	$R_{\Theta JC}$		1.4	1.4	1.4	°C/W





 $V_{RRM} = 600 V - 1000 V$

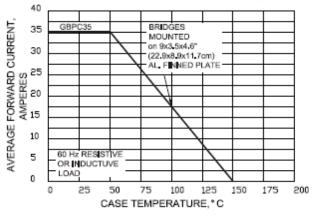
 $I_0 = 35 A$

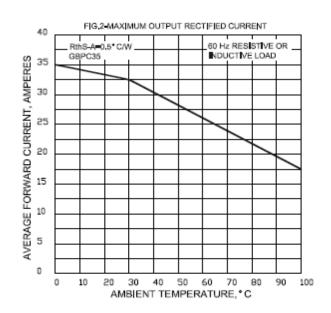
Downloaded from Arrow.com.



GBPC3506T/W thru GBPC3510T/W

FIG 1-MAXIMUM OUTPUT RECTIFIED CURRENT





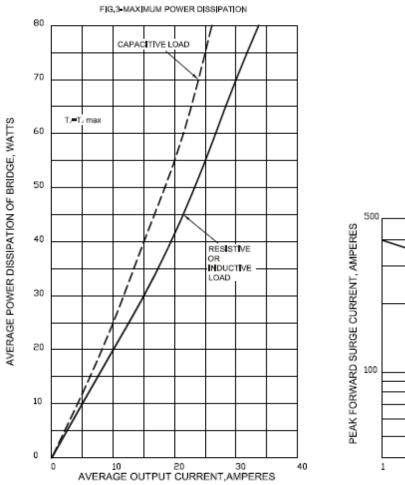
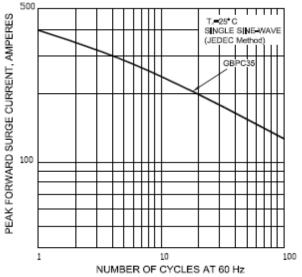


FIG 4-MAXIMUM NON-REPEITIVE PEAK FORWARD

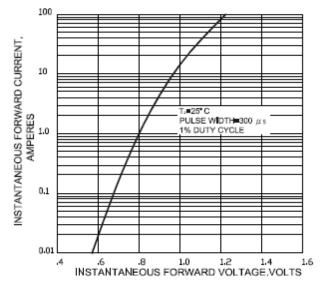


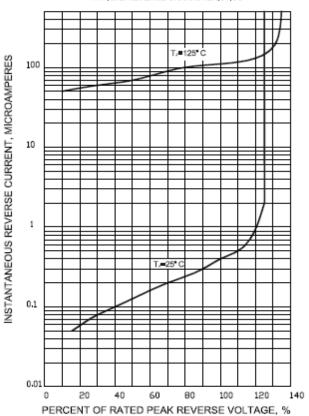
Downloaded from Arrow.com.



GBPC3506T/W thru GBPC3510T/W

FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG





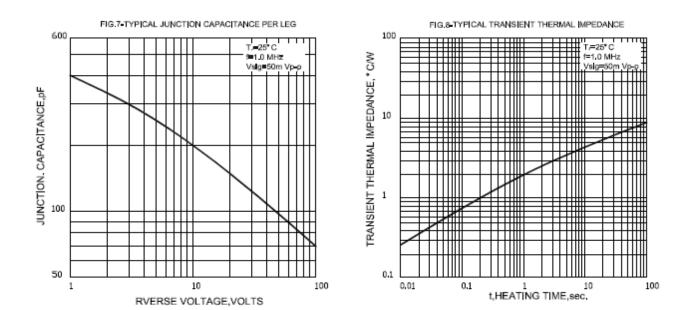


FIG.6-TYPICAL REVERSE CHARACTERISTICS



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

