BR3500W - BR3510W SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 35 Amperes

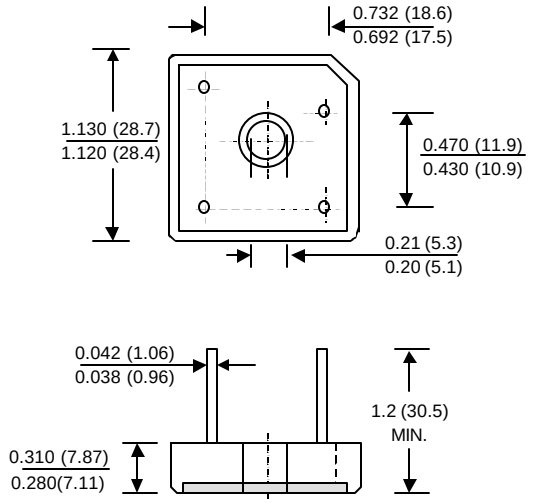
FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* High case dielectric strength

MECHANICAL DATA :

* Case : Molded plastic with heatsink integrally mounted in the bridge encapsulation
* Epoxy : UL94V-O rate flame retardant
* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
* 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 : 15.95 grams

BR50W



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	BR 3500W	BR 3501W	BR 3502W	BR 3504W	BR 3506W	BR 3508W	BR 3510W	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current Tc = 55°C	$I_{F(AV)}$	35							Amp.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	400							Amp.
Current Squared Time at t < 8.3 ms.	I^2t	660							A^2S
Maximum Forward Voltage per Diode at I_F = 17.5 Amps.	V_F	1.1							Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	200							mA
Typical Thermal Resistance at Junction to Case (Note 1)	$R\theta JC$	1.5							°C/W
Typical Thermal Resistance at Junction to Ambient	$R\theta JA$	10							°C/W
Operating Junction Temperature Range	T_J	- 40 to + 150							°C
Storage Temperature Range	T_{STG}	- 40 to + 150							°C

Notes :

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

UPDATE : APRIL 21, 1998

RATING AND CHARACTERISTIC CURVES (BR3500W THRU BR3510W)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

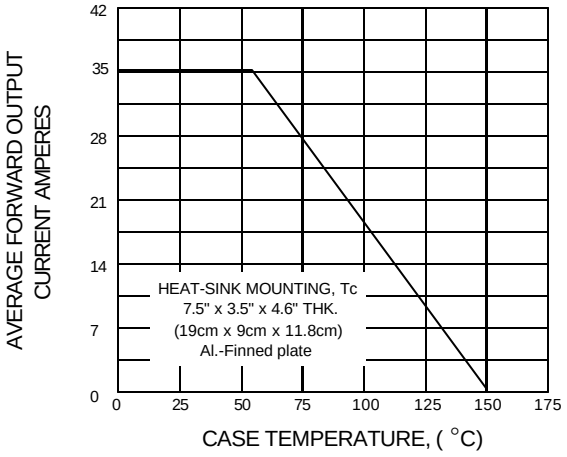


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

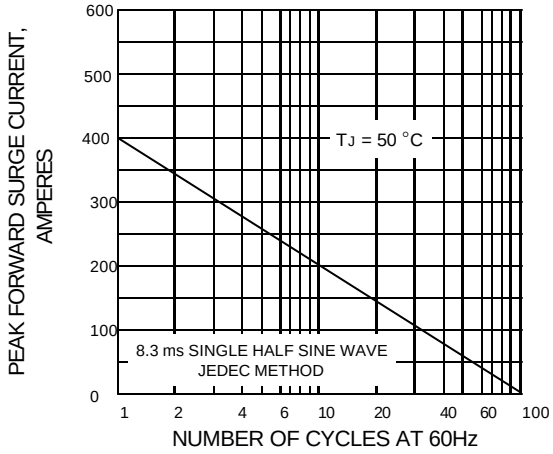


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

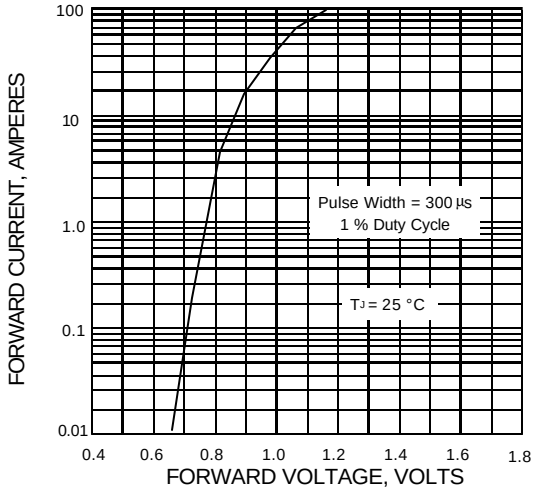
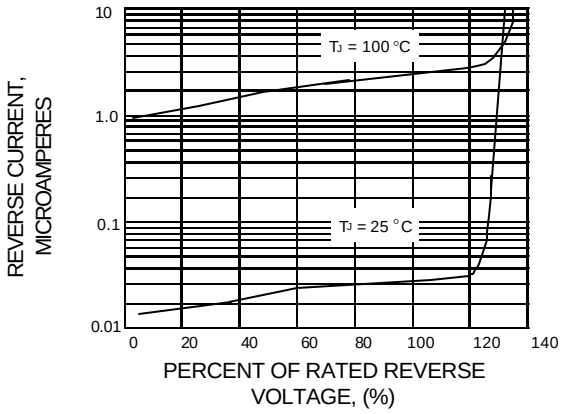



FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE