

BR1500W - BR1510W

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

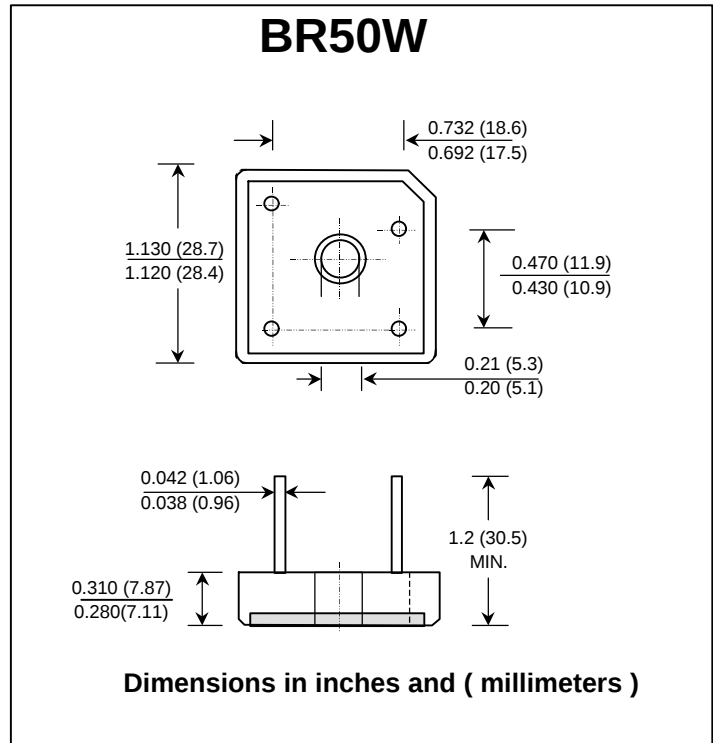
Io : 15 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Ideal for printed circuit board

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



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 1500W	BR 1501W	BR 1502W	BR 1504W	BR 1506W	BR 1508W	BR 1510W	UNIT
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 $T_c = 55^\circ\text{C}$	$I_{F(AV)}$	15							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							Amps.
Current Squared Time at $t < 8.3$ ms.	I^2t	375							A^2S
Maximum Forward Voltage per Diode at $I_F = 7.5$ Amp.	V_F	1.1							Volts
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$	I_R	10							μA
at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_{R(H)}$	200							μA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.9							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	- 40 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150							$^\circ\text{C}$

Notes :

1. Thermal Resistance from junction to case with units mounted on a 5" x 4" x 3" (12.7cm.x 10.2cm.x 7.3cm.) Al.-Finned Plate

RATING AND CHARACTERISTIC CURVES (BR1500W - BR1510W)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

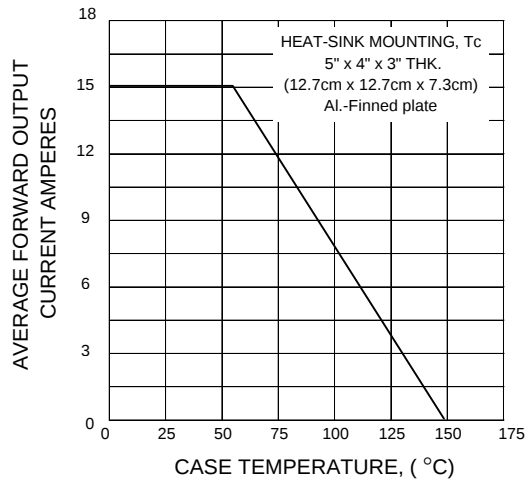


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

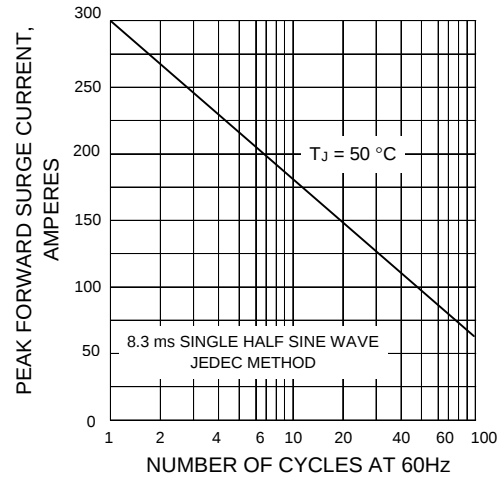


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

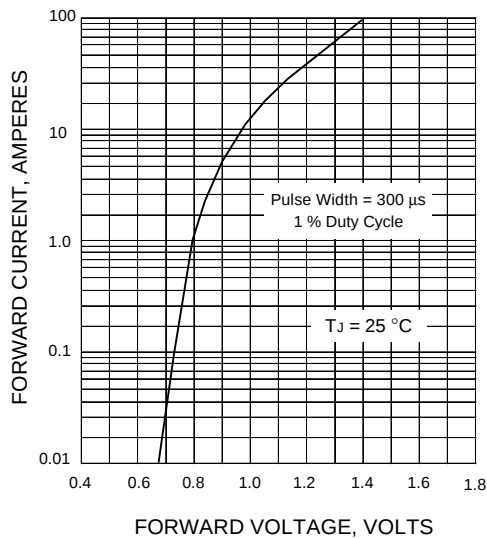


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

