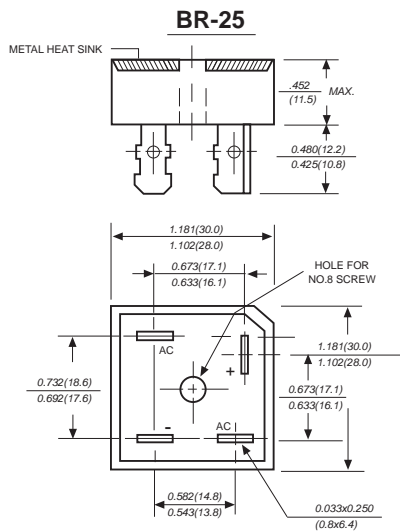


# BR2505 THRU BR2510

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts    Forward Current - 25.0 Amperes



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, at 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** Molded plastic body  
**Terminals:** Plated 0.25" (6.35mm) lug.  
**Polarity:** Polarity symbols marked on case  
**Mounting:** Thru hole for #8 screw, 20in.-lbs. torque max.  
**Weight:** 0.66 ounce, 18.7 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	BR 2505	BR 251	BR 252	BR 254	BR 256	BR 258	BR 2510	UNITS
Maximum repetitive 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 output rectified current at $T_c=50^\circ\text{C}$ (Note 1,2)	$I_{(AV)}$	25							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300.0							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	373							A <sup>2</sup> s
Maximum instantaneous forward voltage drop per bridge element at 12.5A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	10							mA
		1.0							mA
Isolation voltage from case to leads	$V_{ISO}$	2500							$V_{AC}$
Typical Thermal Resistance (Note 2)	$R_{qJA}$	2.0							°C/W
Operating junction temperature range	$T_J$	-65 to +150							°C
storage temperature range	$T_{STG}$	-65 to +150							°C

**NOTES:**

1. Unit mounted on 5" x 6" x 4.9" thick (12.8cm x 15.2cm x 12.4cm) Al. plate.
2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #8 screw.