

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

BR3505W THRU BR3510W

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 35 Amperes

### **FEATURES**

- \* Plastic case with heatsink for Maximum Heat Dissipation
- \* Surge overload ratings-400 Amperes
- \* Low forward voltage drop

#### MECHANICAL DATA

\* Case: Molded plastic with heatsink

\* Epoxy: UL 94V-0 rate flame retardant

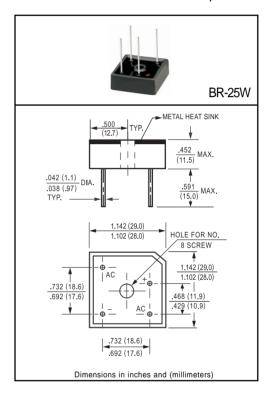
\* Lead: MIL-STD-202E, Method 208 guaranteed

\* Polarity: As marked \* Mounting position: Any

\* Weight: 30 grams

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.



		SYMBOL	BR3505W	BR351W	BR352W	BR354W	BR356W	BR358W	BR3510W	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 55°C		lo	35							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	400						Amps	
Maximum Forward Voltage Drop per element at 17.5A DC		VF	1.1						Volts	
Maximum DC Reverse Current at Rated	@TA = 25°C	- IR	10							uAmps
DC Blocking Voltage per element	@Ta = 100°C	I IK	500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	664						A <sup>2</sup> Sec	
Typical Junction Capacitance ( Note1)		CJ	300						pF	
Typical Thermal Resistance (Note 2)		RθJC	2.2							°C/W
Operating and Storage Temperature Range		TJ,TSTG		-55 to + 150						°C

NOTES: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Case per leg.

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 500 PEAK FORWARD SURGE CURRENT, (A) 8.3ms Single Half Sine-Wave (JEDEC Method) 400 300 200 100 0 2 8 10 20 60 80 100 1 4 6 NUMBER OF CYCLES AT 60Hz

FIG. 2 - TYPICAL FORWARD CURRENT **DERATING CURVE** 50 AVERAGE FORWARD CURRENT, (A) 40 30 20 Single Phase Half Wave 10 60Hz Indutive or Resistive Load 0 0 50 100 150 175 CASE TEMPERATURE, ( $^{\circ}\!$ C )

