



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**BR1505  
THRU  
BR1510**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 15 Amperes**

**FEATURES**

- \* Plastic case with heatsink for Maximum Heat Dissipation
- \* Surge overload ratings-300 Amperes
- \* Low forward voltage drop

**MECHANICAL DATA**

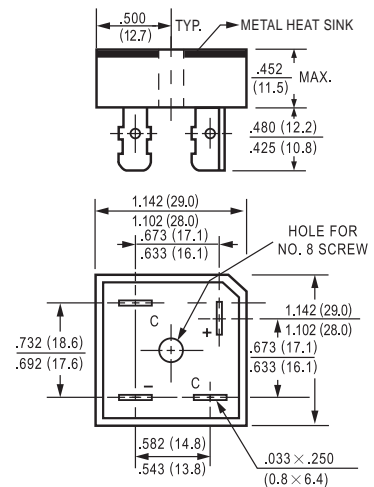
- \* Case: Molded plastic with heatsink
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 30 grams

**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%.



**BR-25**



	SYMBOL	BR1505	BR151	BR152	BR154	BR156	BR158	BR1510	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Output Current at T <sub>c</sub> = 55°C	I <sub>O</sub>	15							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>					300				Amps
Maximum Forward Voltage Drop per element at 7.5A DC	V <sub>F</sub>					1.1				Volts
Maximum DC Reverse Current at Rated	I <sub>R</sub>	@ T <sub>A</sub> = 25°C		10						uAmps
DC Blocking Voltage per element		@ T <sub>A</sub> = 100°C		500						
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t					374				A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)	C <sub>J</sub>					300				pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>					2.5				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>					-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.

# RATING AND CHARACTERISTIC CURVES ( BR1505 THRU BR1510 )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

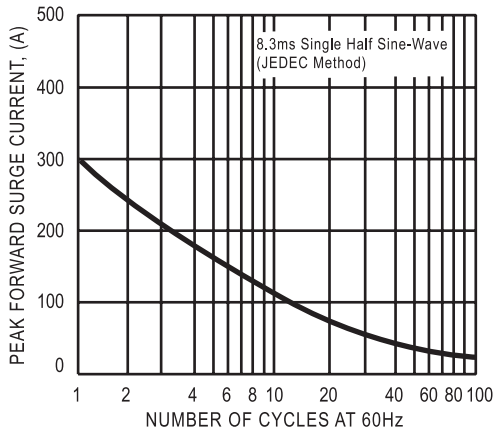


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

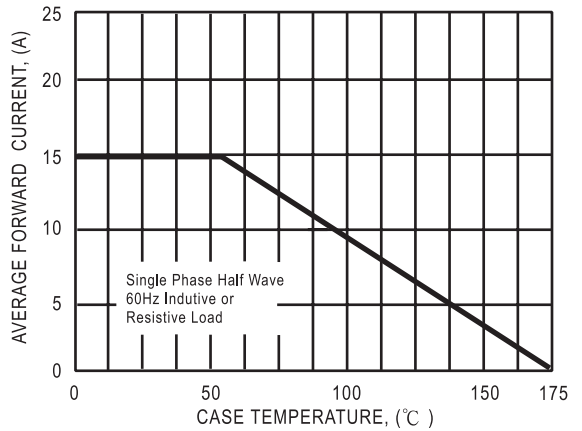


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

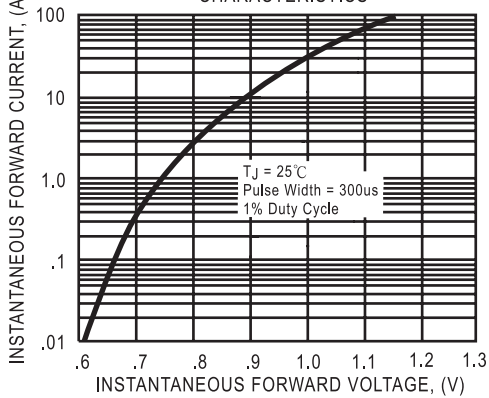
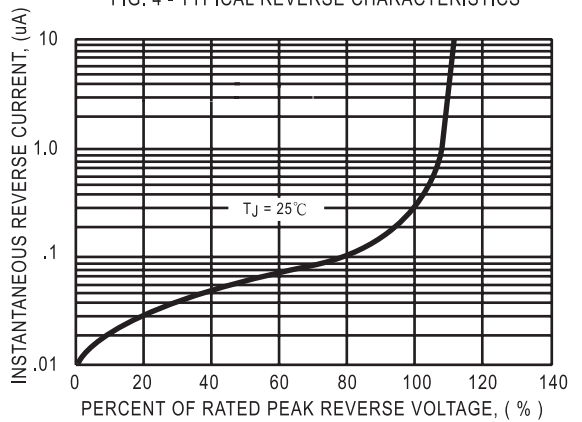


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS





**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**BR1505W  
THRU  
BR1510W**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**  
**VOLTAGE RANGE - 50 to 1000 Volts**      **CURRENT - 15 Amperes**

**FEATURES**

- \* Plastic case with heatsink for Maximum Heat
- \* Surge overload ratings-300 Amperes
- \* Low forward voltage drop

**MECHANICAL DATA**

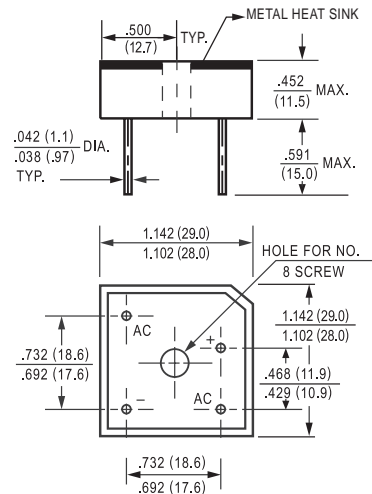
- \* Case: Molded plastic with heatsink
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 30 grams

**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%.



**BR-25W**



Dimensions in inches and (millimeters)

	SYMBOL	BR1505W	BR151W	BR152W	BR154W	BR156W	BR158W	BR1510W	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	Io	15							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300							Amps
Maximum Forward Voltage Drop per element at 7.5A DC	VF	1.1							Volts
Maximum DC Reverse Current at Rated	IR	10							uAmps
DC Blocking Voltage per element		500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	374							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note1)	Cj	300							pF
Typical Thermal Resistance (Note 2)	RθJC	2.5							°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.

# RATING AND CHARACTERISTIC CURVES ( BR1505W THRU BR1510W )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

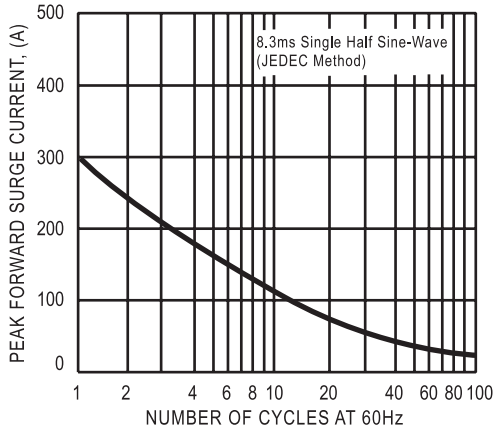


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

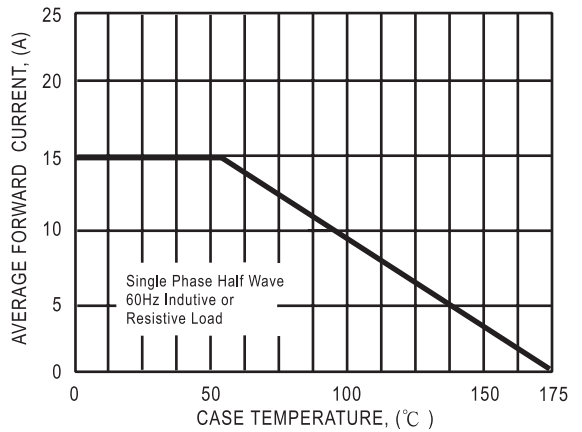


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

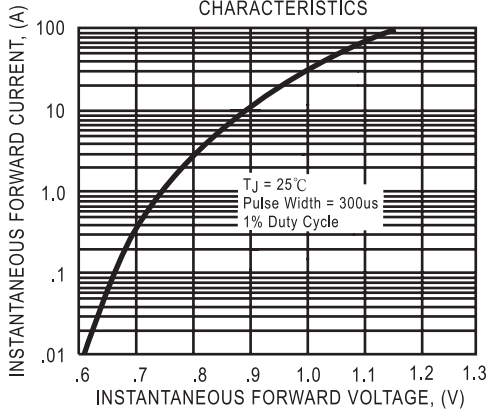


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

