



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**BR05DF
THRU
BR05JF**

TECHNICAL SPECIFICATIONS OF FAST RECOVERY SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 200 to 600 Volts

CURRENT - 0.5 / 0.8 Ampere

FEATURES

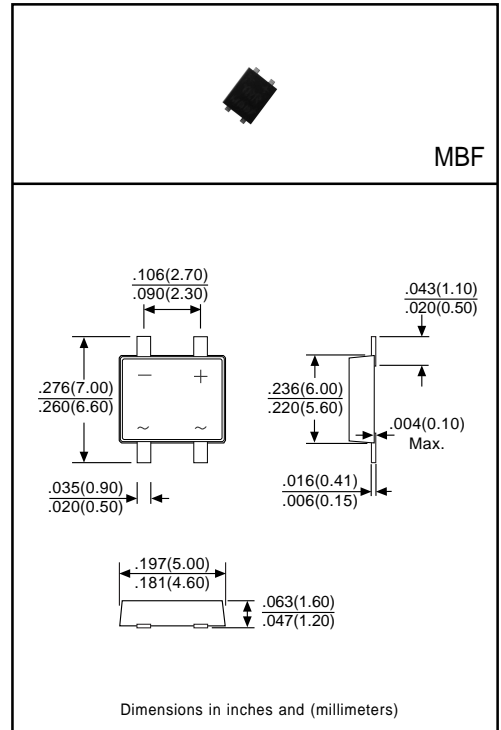
- * Ideal for automated placement
- * Low profile space
- * Low forward voltage drop
- * Low leakage current
- * High forward surge capability
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.12 gram

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	BR05DF	BR05GF	BR05JF	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	140	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	200	400	600	Volts
Maximum Average Forward Output Current at T _A = 30°C (Note 2 / 3)	I _O	0.5 / 0.8			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30			Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.4A DC	V _F	1.25			Volts
Maximum Reverse Current at rated	I _R	5.0			μAmps
DC Blocking Voltage per element		100			
Maximum reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	150		250	nS
Typical Junction Capacitance (Note1)	C _J	13			pF
Typical Thermal Resistance (Note 2 / 3)	R _{θJA}	85 / 70			°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-50 to + 150			°C

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. On glass epoxy P.C.B. with 0.05 x 0.05" (1.3x1.3mm) copper pads.
3. On aluminum substrate P.C.B. with an area of 0.8 x 0.8" (20x20mm) mounted on 0.05 x 0.05" (1.3x1.3mm) copper pads.

RATING AND CHARACTERISTIC CURVES (BR05DF THRU BR05JF)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT

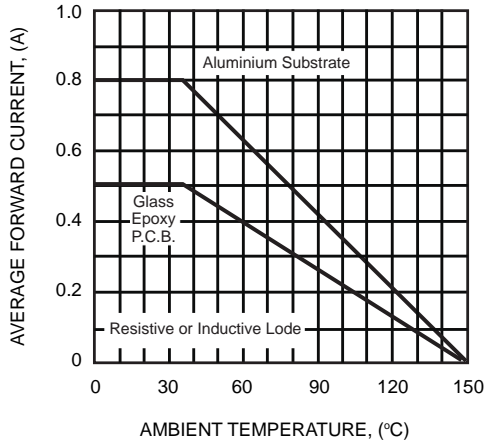


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

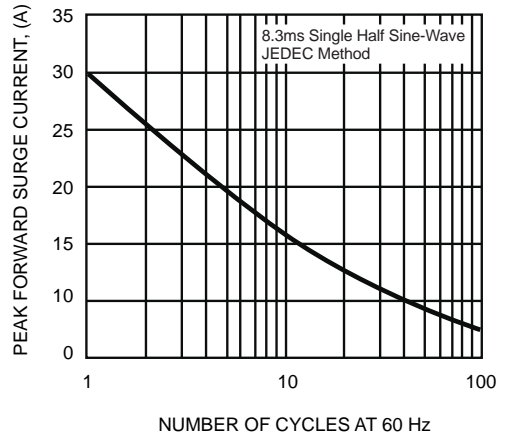


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

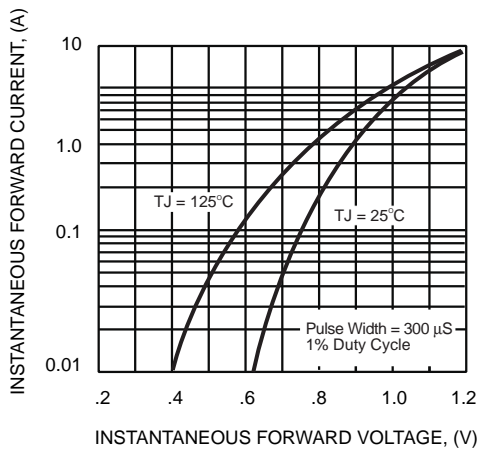


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

