

FBR800 - FBR810

PRV : 50 - 1000 Volts
Io : 8.0 Amperes

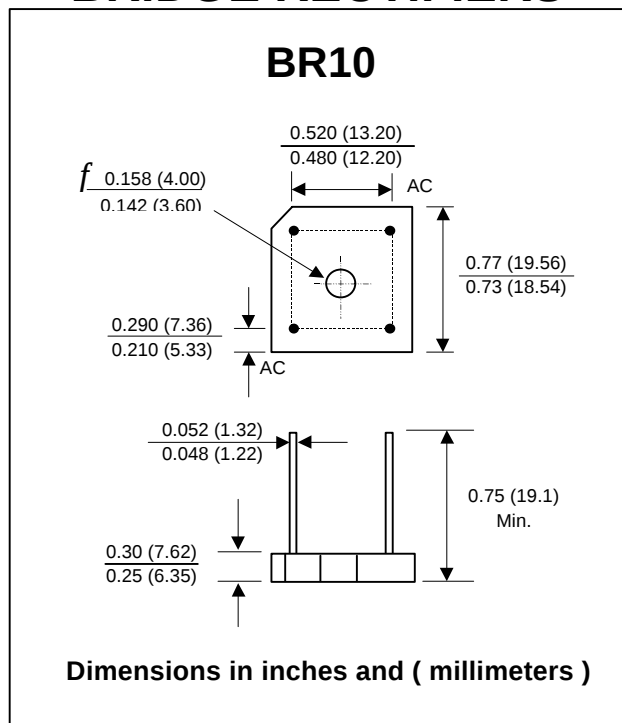
FEATURES :

- * High case dielectric strength
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * Ideal for printed circuit board
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Reliable low cost construction utilizing molded plastic technique
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL - STD 202 , Method 208 guaranteed
- * Polarity : Polarity symbols marked on case
- * Mounting position : Any
- * Weight : 6.1 grams

FAST RECOVERY BRIDGE RECTIFIERS



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	FBR 800	FBR 801	FBR 802	FBR 804	FBR 806	FBR 808	FBR 810	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc = 50 °C	IF(AV)	8.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	200							A
Current Squared Time at t < 8.3 ms.	I²t	160							A²S
Maximum Forward Voltage drop per Diode at IF = 4.0 A	VF	1.3							V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	10							µA
	IR(H)	200							µA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		ns
Typical Thermal Resistance per diode (Note 2)	RθJC	2.5							°C/W
Operating Junction Temperature Range	TJ	- 50 to + 150							°C
Storage Temperature Range	TSTG	- 50 to + 150							°C

Notes :

- 1) Measured with $I_F = 0.5\text{ Amp.}$, $I_R = 1\text{ Amp.}$, $I_{rr} = 0.25\text{ Amp.}$
- 2) Thermal Resistance from junction to case with units mounted on a 3.2" x 3.2" x 0.12" THK (8.2cm.x 8.2cm.x 0.3cm.) Al. Plate. heatsink.

RATING AND CHARACTERISTIC CURVES (FBR800 - FBR810)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

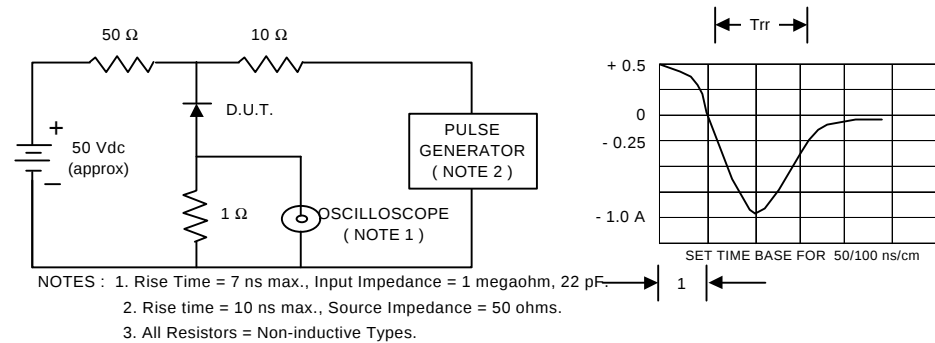


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

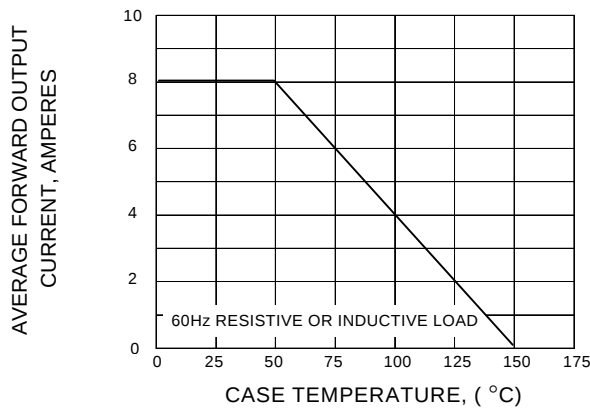


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

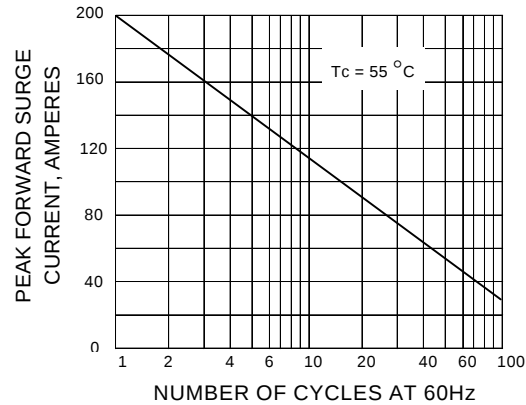


FIG.4 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

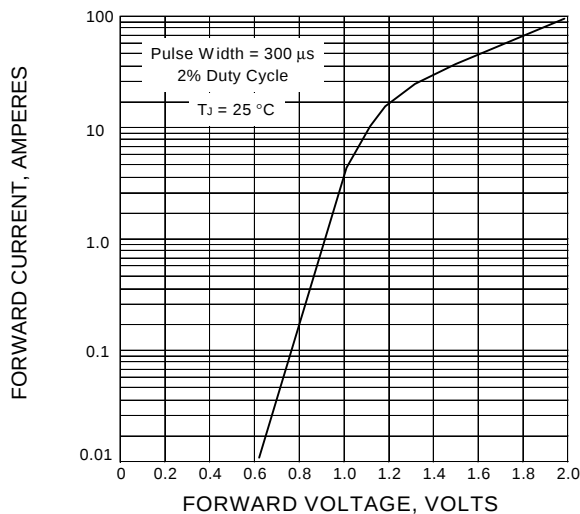


FIG.5 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

