

MBCR10JLH THRU MBCR10MLH
Low VF Bridge Rectifier

● **FEATURES**

- * Halogen-free type
- * Internal structure with GPRC (glass passivated rectifier chip) inside
- * Compliance to RoHS product
- * Leadless chip form, no lead damage
- * Low power loss, High efficiency
- * High current capability
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● **APPLICATION**

- * AC/DC Power Supply
- * Communication Equipment

● **MECHANICAL DATA**

Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

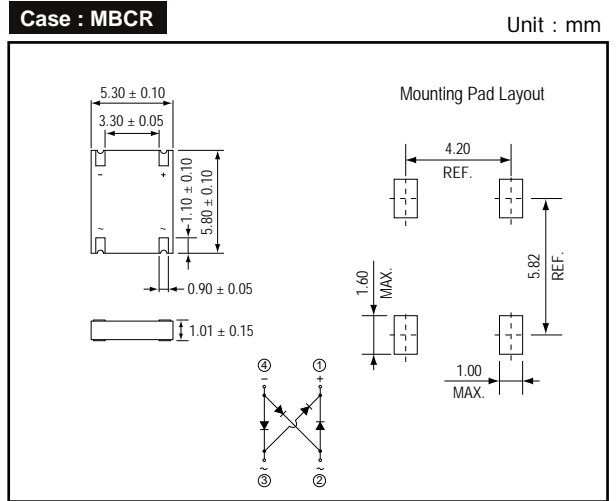
Polarity : Laser marking symbols

Weight : 0.07 gram

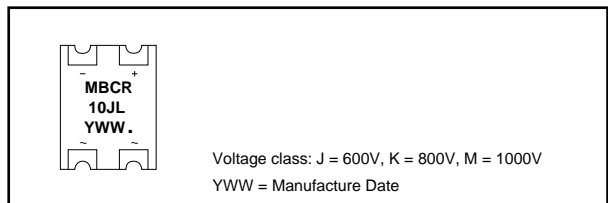
● **PACKING**

- * 5,000 pieces per 13" (330mm ± 2mm) reel
- * 2 reels per box
- * 5 boxes per carton

● **OUTLINE DIMENSIONS**



● **MARKING**



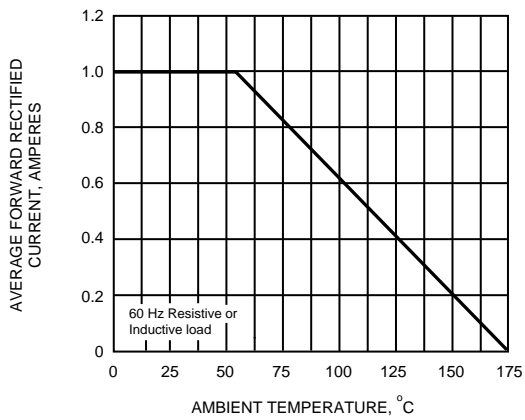
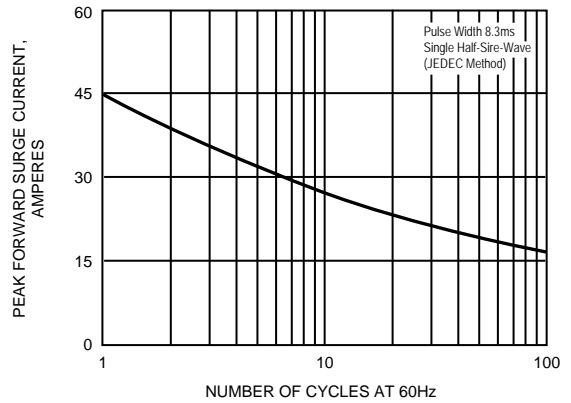
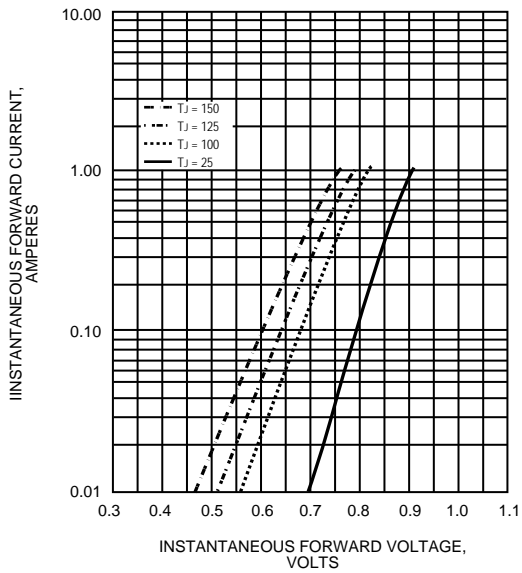
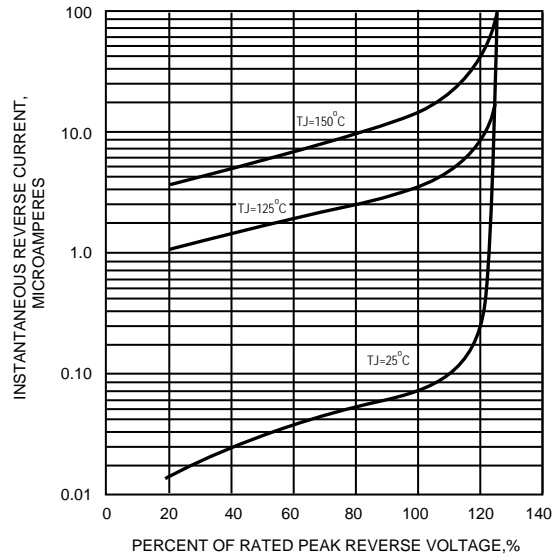
Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	Rating			Unit
			MBCR10JLH	MBCR10KLH	MBCR10MLH	
Repetitive peak reverse voltage	VRRM		600	800	1000	V
Average forward current	IF(AV)		1.0			A
Peak forward surge current	IFSM	8.3ms single half sine-wave	45			A
Operating junction and storage temperature Range	Tj,TSTG		-55 to +175			°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 1.0A	-	0.92	0.95	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C	-	0.08	5	uA
Current squared time	I ² t	t < 8.3ms , Ta = 25 °C	-	8.4	-	A ² s
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	25	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 1)	-	75	-	°C/W
	Rth(JA)	Junction to ambient (NOTE 2)	-	95	-	
	Rth(JL)	Junction to lead (NOTE 2)	-	20	-	

NOTES : (1) Thermal resistance, junction to ambient, measured on PC board with 15 x 15mm land areas.
 (2) Thermal resistance, junction to ambient, measured on PC board with 5.0 x 5.0mm land areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

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

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

FIG.5 - TYPICAL JUNCTION CAPACITANCE
