

MB105 THRU MB107

VOLTAGE 600V ~ 1000V

1.0AMP Single Phase Surface Mount Bridge Rectifiers

A suffix of "-C" specifies halogen-free.

● FEATURES

- * Internal constructure with GPRC (glass passivated rectifier chip) inside
- * RoHS Compliant Lead-Free Product
- * Lead less chip form , no lead damage
- * Lead-free solder joint , no wire bond & lead frame
- * 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.

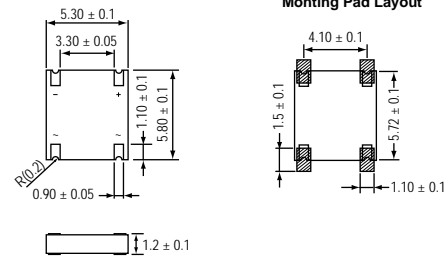
Polarity : Laser Cathode band marking

Weight : 0.07 gram

● PACKING

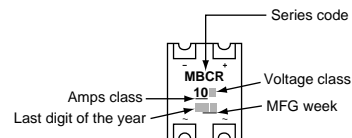
- * 5,000 pieces per 13" (3308mm ± 2mm) reel
- * 2 reels per box
- * 5 boxes per carton

Case : MB



OUTLINE DIMENSIONS Unit : mm

MARKING :



Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	MB105	MB106	MB107	Unit
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	30			A
Operating junction temperature Range	Tj		-55 to +150			°C
Storage temperature Range	TSTG		-55 to +150			

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 0.4A	-	0.87	0.90	V
		IF = 1.0A	-	0.95	1.00	
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	-	3.74	-	A ² s
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	25	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE)	-	110	-	°C/W
	Rth(JL)	Junction to lead (NOTE)	-	15	-	

NOTES : Thermal resistance, junction to ambient, measured on PC board with 5.0mm² (0.03mm thick) land areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

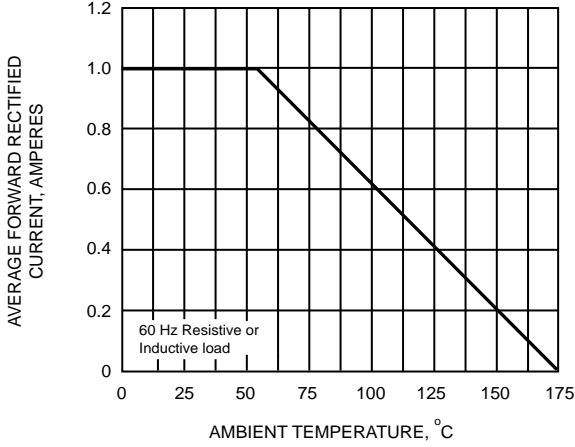


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

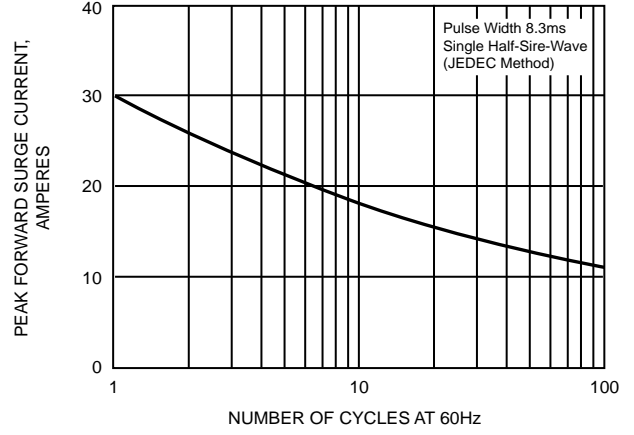


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

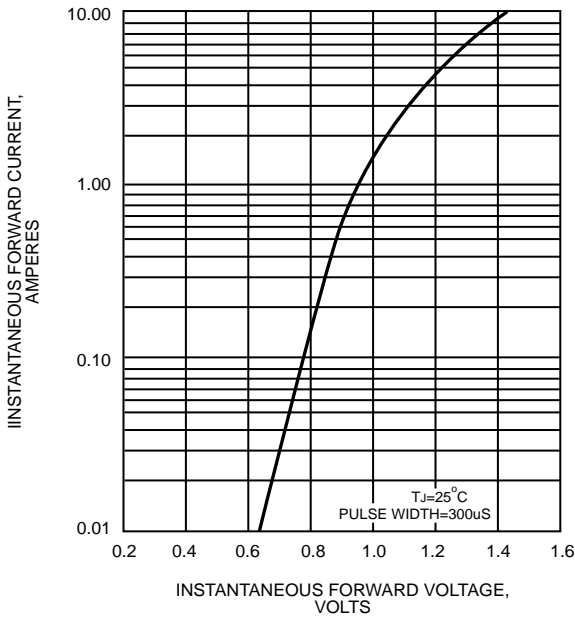


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

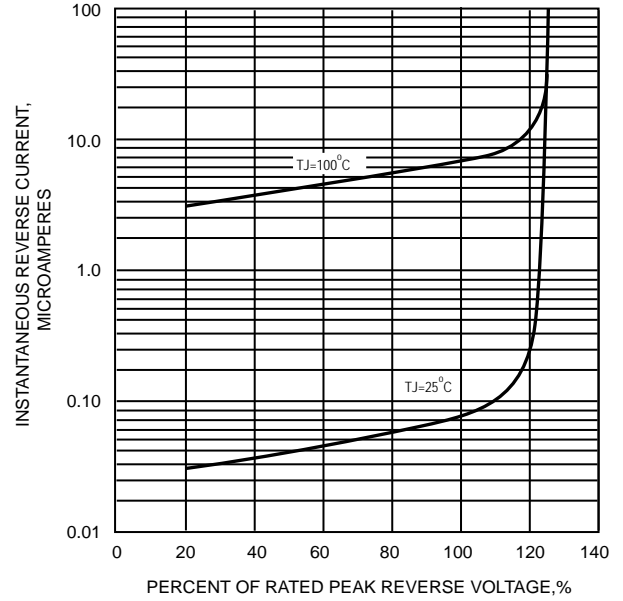


FIG.5 - TYPICAL JUNCTION CAPACITANCE

