Elektronische Bauelemente

MB205 ~ MB207

Voltage 600V ~ 1000V

2.0 Amp Glass Passivated Bridge Rectifiers Diodes

RoHS compliant product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Halogen-free type
- Internal structure with GPRC (glass passivated rectifier chip) inside
- Compliance to RoHS product
- Lead less 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

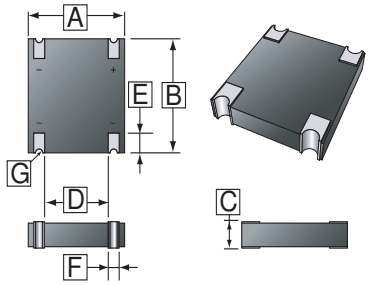
MECHANICAL DATA

- Case : Packed with FRP substrate and epoxy under-filled
  Terminals : Pure Tin plated (Lead-Free),
  solderable per MIL-STD-750, Method 2026
- Polarity: Laser marking symbols
- Weight: 0.11 gram

PACKAGE INFORMATION

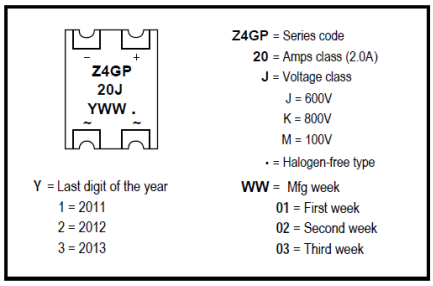
Package	MPQ	Leader Size
MBCR	5K	13 inch

MBCR



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.20	5.40	E	1.00	1.20
B	5.70	5.90	F	0.85	0.95
C	1.05	1.35	G	R 0.2 REF.	
D	3.25	3.35			

MARKING



ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	MB205	MB206	MB207	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Average Forward Current	$I_{F(AV)}$	2.0			A
Peak Forward Surge Current @ 8.3ms single half sine-wave	I_{FSM}	50			A
Operating junction and Storage Temperature Range	T_J, T_{STG}	-55~+175			℃

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

Parameters	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage @ I_F= 2.0A	V_F	-	0.95	1.00	V
Repetitive peak reverse current @V_R=Max. V_{RRM}	I_{RRM}	-	0.08	5	uA
Current squared time,t < 8.3ms	I^2t	-	10.4	-	A^2s
Junction Capacitance, V_R = 4V, f =1.0MHz	C_J	-	25	-	pF
Thermal Resistance Junction to Ambient [1]	$R_{\theta JA}$	-	95	-	℃ / W
Thermal Resistance Junction to Lead [1]	$R_{\theta JL}$	-	15	-	

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

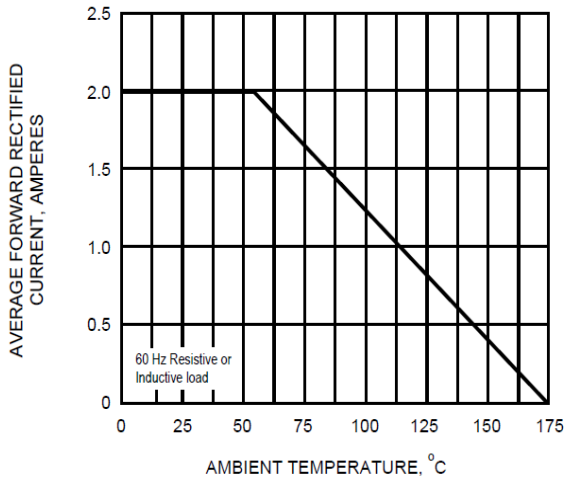

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

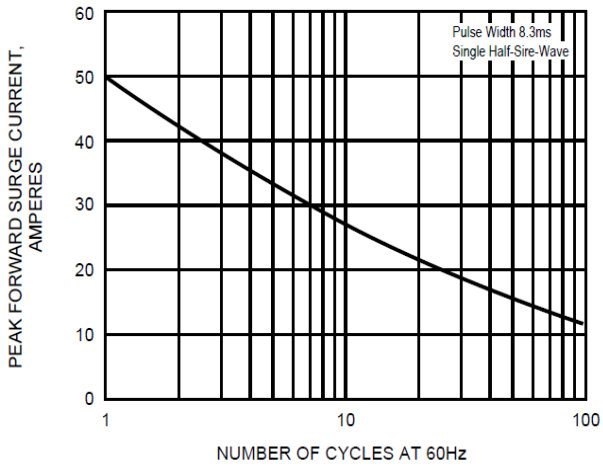

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

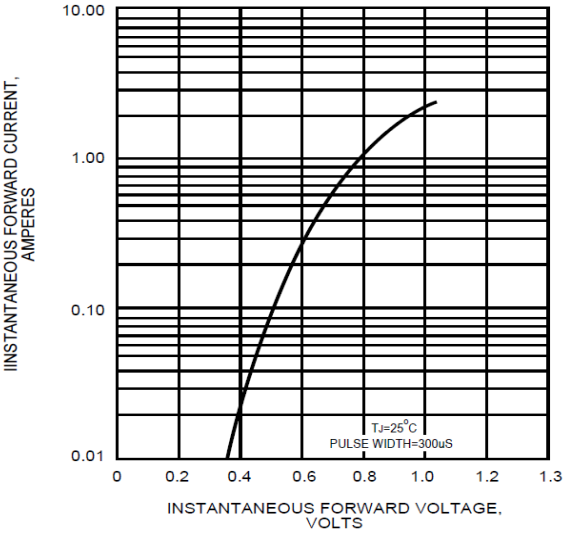

FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

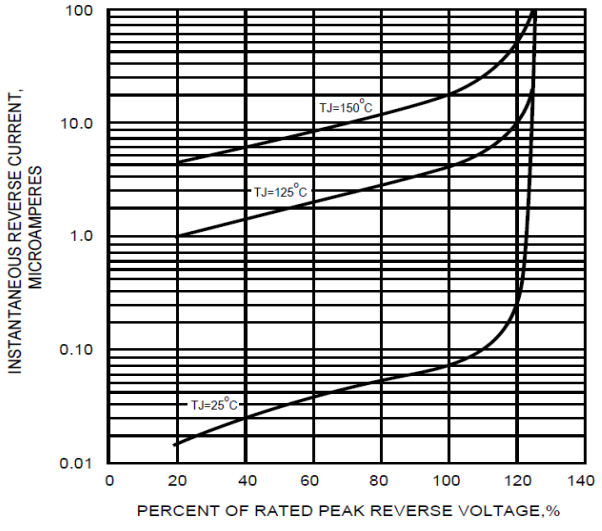

FIG.5 - TYPICAL JUNCTION CAPACITANCE