Elektronische Bauelemente

MBS104 ~ MBS110

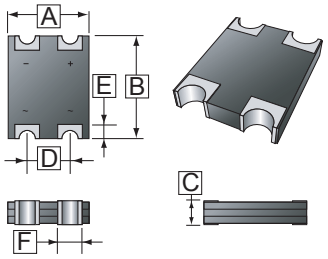
VOLTAGE 40 V ~ 100 V
1.0 Amp
Miniature SMD Glass Schottky Bridge Rectifiers

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

FEATURES

- Halogen-free type
- Lead free product, compliance to RoHS
- 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

MBC



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.65	4.85	D	2.49	2.59
B	6.05	6.25	E	0.95	1.05
C	1.10	1.30	F	1.35	1.45

APPLICATION

- Suitable for battery – powered circuits
- 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 grams

SMBC = Series code
10 = Amps class (1.0A)
4 = Voltage class (40V)
6 = 60V
10 = 100V
Y = Last digit of the year
8 = 2008
9 = 2009
10 = 2010

WW = Mfg week
01 = First week
02 = Second week
03 = Third week
• = Halogen-free type

PACKING

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

MAXIMUM RATINGS AND (T_A=25°C unless otherwise specified)

PARAMETERS	SYMBOL	MBS104	MBS106	MBS110	UNIT
Peak Repetitive Peak Reverse Voltage	V_{RRM}	40	60	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave	I_{FSM}	30			A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ 125			℃

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

PARAMETERS	Type	SYMBOL	Min.	Typ.	Max.	UNIT
Maximum Forward Voltage @ IF=1.0A	MBS104	V_F	-	0.49	0.50	V
	MBS106		-	0.60	0.70	
	MBS110		-	0.75	0.85	
Repetitive peak reverse current (V_R = Max.V_{RRM}, T_A = 25°C)		I_{RRM}	-	0.025	0.20	mA
Typical Junction Capacitance		C_J	-	-	250	pF
Thermal Resistance junction to ambient (Note)		$R_{\theta JA}$	-	110	-	℃/W
Thermal Resistance junction to lead (Note)		$R_{\theta JL}$	-	15	-	

Note: Thermal resistance, junction to ambient, measured on PC board with 5.0mm^2 (0.03mm thick) land areas.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

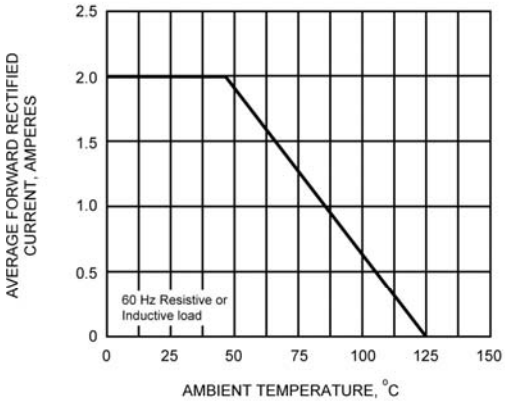

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

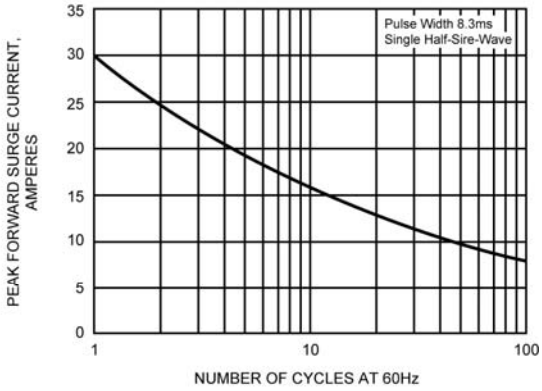

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

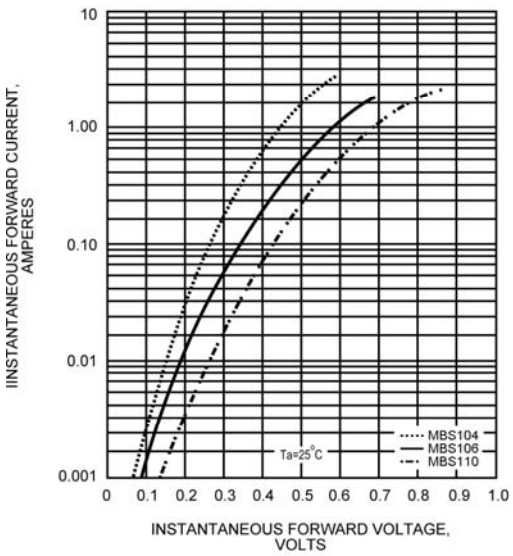

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

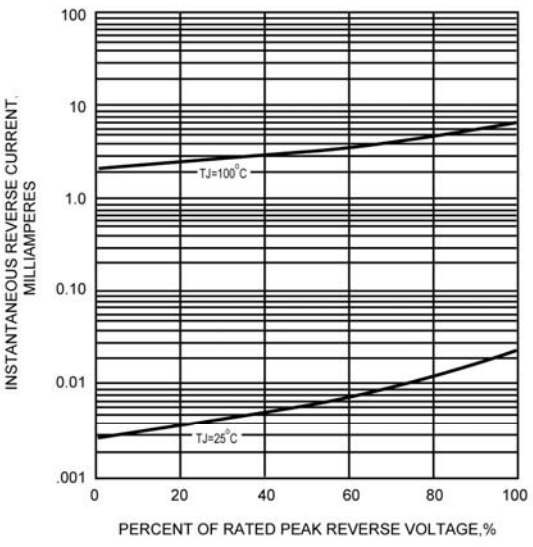

FIG.5 - TYPICAL JUNCTION CAPACITANCE