

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

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

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)

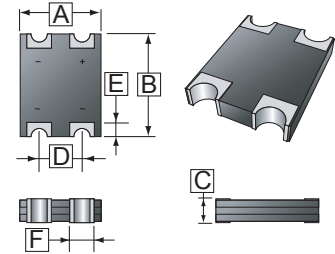
PARAMETERS	SYMBOL	MBS104	MBS106	MBS110	UNIT
Peak Repetitive Peak Reverse Voltage	V _{RRM}	40	60	100	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0			A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave	I _{FSM}	30			A
Operating and Storage temperature range	T _J , T _{STG}	-55 ~ 125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

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

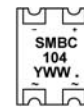
PARAMETERS	Type	SYMBOL	Min.	Typ.	Max.	UNIT
Maximum Forward Voltage @ I _F =1.0A	MBS104	V _F	-	0.49	0.50	V
	MBS106		-	0.60	0.70	
	MBS110		-	0.75	0.85	
Repetitive peak reverse current (V _R = Max.V _{RRM} , T _A = 25°C)		I _{RRM}	-	0.025	0.20	mA
Typical Junction Capacitance		C _J	-	-	250	pF
Thermal Resistance junction to ambient (Note)		R _{θJA}	-	110	-	°C/W
Thermal Resistance junction to lead (Note)		R _{θJL}	-	15	-	

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

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



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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

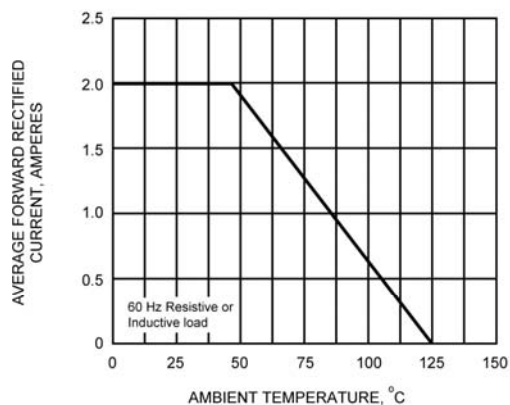


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

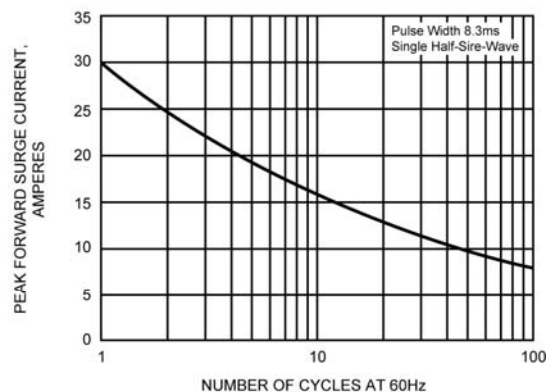


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

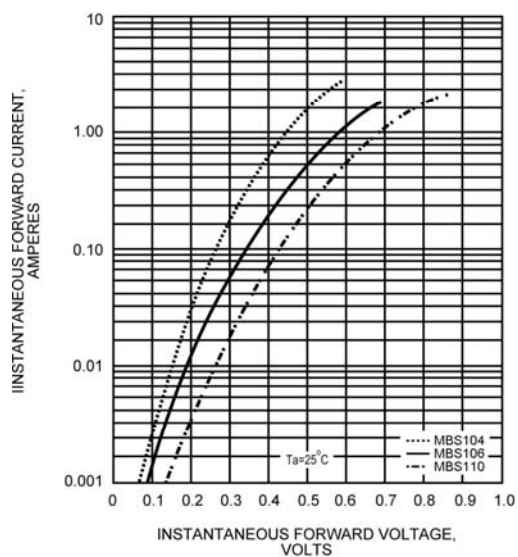


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

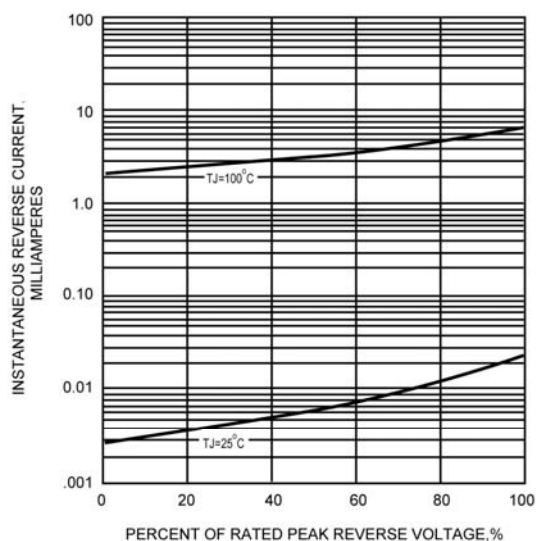


FIG.5 - TYPICAL JUNCTION CAPACITANCE

