

# MBR0520-M THRU MBR05100-M

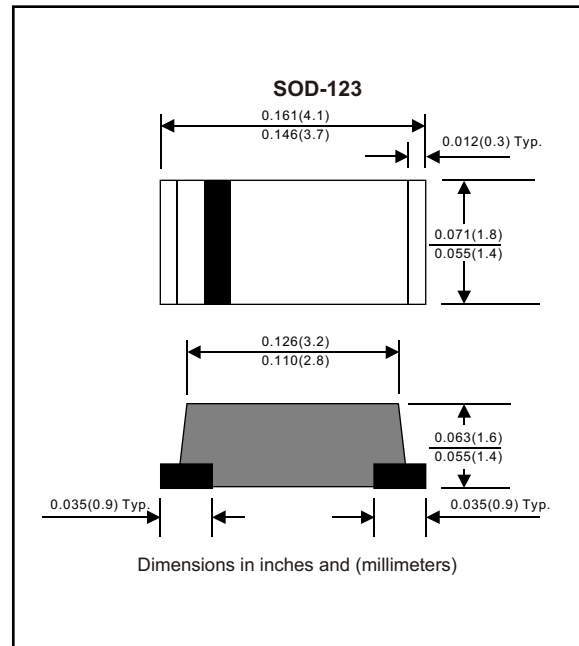
Silicon epitaxial planer type

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound.
- For surface mounted applications.
- Exceeds environmental standards of ML-S-19500 / 228
- Low leakage current

## Mechanical data

Case : Moulded plastic, JEDEC SOD-123 / MINI SMA  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : Indicated by cathode band  
 Mounting Position : Any  
 Weight : 0.04 gram



## MAXIMUM RATINGS (AT $T_A=25^{\circ}C$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	$I_O$			0.5	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			15	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^{\circ}C$	$I_R$			0.5	mA
	$V_R = V_{RRM}$ $T_A = 125^{\circ}C$				10	mA
Thermal resistance	Junction to ambient	$R_{JC}$		98		$^{\circ}C / w$
Diode junction capacitance	$f=1MHz$ and applied 4vDC reverse voltage	$C_J$		120		pF
Storage temperature		$T_{STG}$	-55		+150	$^{\circ}C$

SYMBOLS	MARKING CODE	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature ( $^{\circ}C$ )
MBR0520-M	02	20	14	20	0.45	-55 to +125
MBR0530-M	03	30	21	30		
MBR0540-M	04	40	28	40		
MBR0550-M	05	50	35	50	0.65	-55 to +150
MBR0560-M	06	60	42	60		
MBR0580-M	08	80	56	80		
MBR05100-M	01	100	70	100	0.80	

\*1 Repetitive peak reverse voltage  
 \*2 RMS voltage  
 \*3 Continuous reverse voltage  
 \*4 Maximum forward voltage

## RATING AND CHARACTERISTIC CURVES (MBR0520-M THRU MBR05100-M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

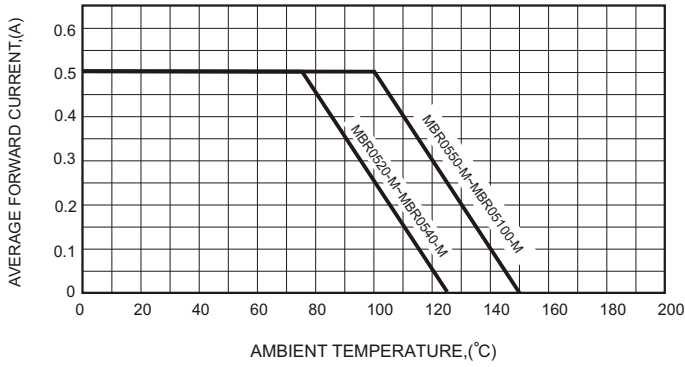


FIG.2-TYPICAL FORWARD CHARACTERISTICS

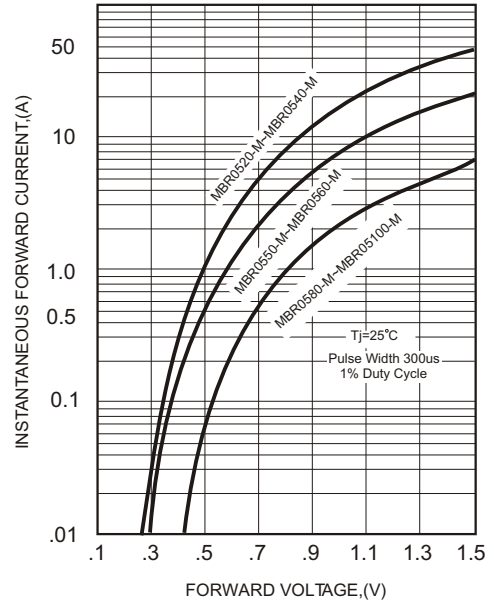


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

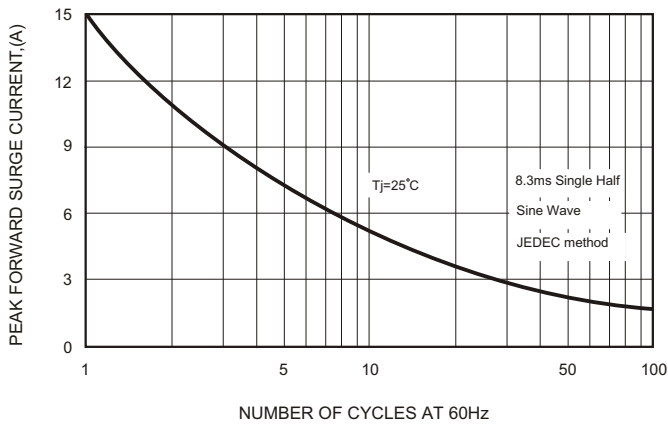


FIG.4-TYPICAL JUNCTION CAPACITANCE

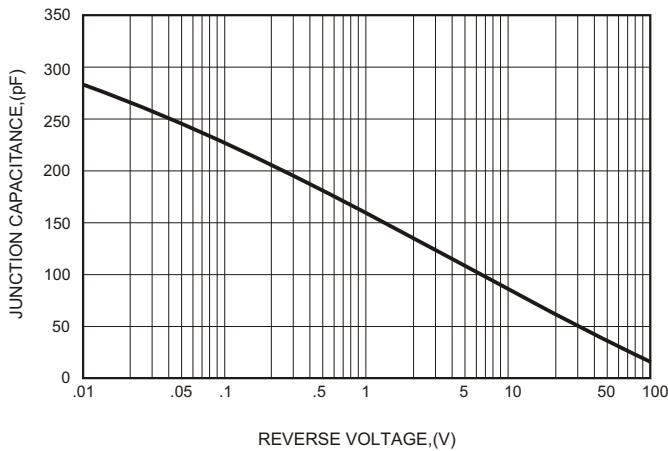


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

