Chip Schottky Barrier Diodes

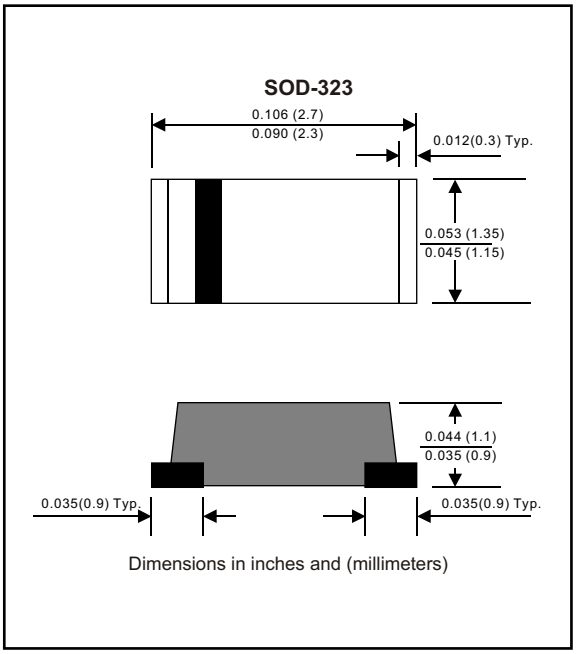
Formosa MS

MBR0520-N THRU MBR0560-N

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 MIL-S-19500 / 228
- Low leakage current



Dimensions in inches and (millimeters)

Mechanical data

Case : Molded plastic, JEDEC SOD-323
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode band
Mounting Position : Any

MAXIMUM RATINGS *(AT T_A=25°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°C	I_R			0.5	mA
	$V_R = V_{RRM}$ T_A = 125°C				10	mA
Thermal resistance	Junction to ambient	R_{JC}		90		°C / W
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	C_J		120		pF
Storage temperature		T_{STG}	-55		+150	°C

SYMBOLS	MARKING CODE	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature (°C)
MBR0520-N	A	20	14	20	0.40	-55 to +125
MBR0530-N	B	30	21	30	0.45	
MBR0540-N	C	40	28	40		
MBR0550-N	D	50	35	50	0.65	-55 to +150
MBR0560-N	E	60	42	60		

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

RATING AND CHARACTERISTIC CURVES (MBR0520-N THRU MBR0560-N)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

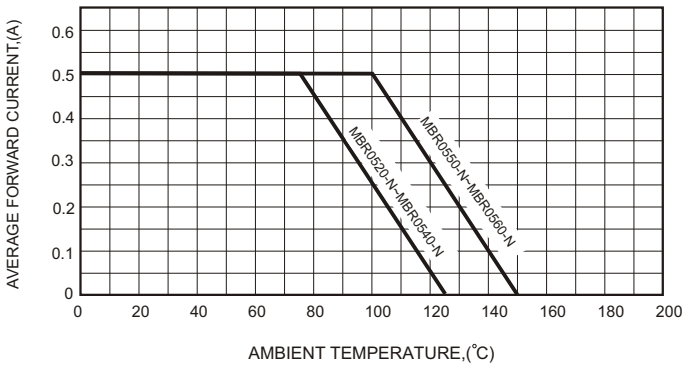


FIG.2-TYPICAL FORWARD CHARACTERISTICS

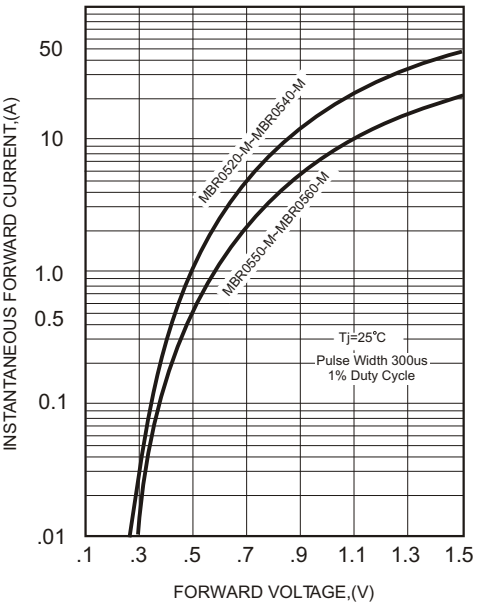


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

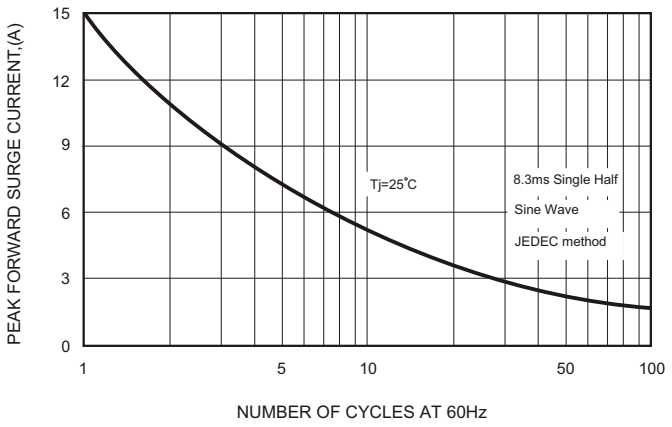


FIG.4-TYPICAL JUNCTION CAPACITANCE

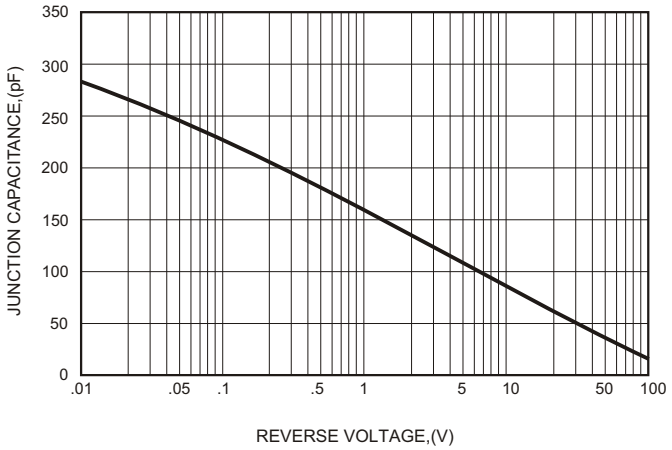


FIG.5 - TYPICAL REVERSE CHARACTERISTICS