

# MBRA120T3 thru MBRA1100T3

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

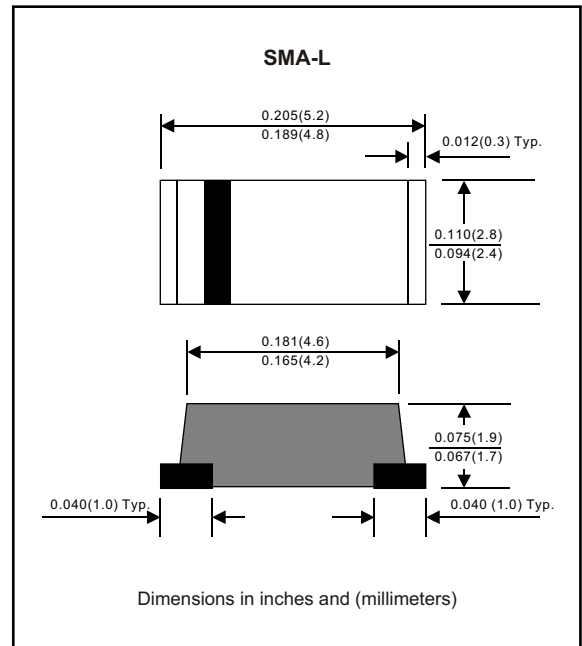
Case : Moulded plastic, JEDEC DO-214AC

Terminals : Solder plated, solderable per ML-STD-750, Method 2026

Polarity : Indicated by cathode band

Mounting Position : Any

Weight : 0.0015 ounce, 0.05 gram



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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	$I_0$			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			30	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^{\circ}\text{C}$	$I_R$			0.5	mA
	$V_R = V_{RRM}$ $T_A = 125^{\circ}\text{C}$				10	mA
Thermal resistance	Junction to ambient	$R_{JA}$		88		$^{\circ}\text{C} / \text{w}$
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	$C_J$		120		pF
Storage temperature		$T_{STG}$	-55		+150	$^{\circ}\text{C}$

SYMBOLS	MARKING CODE	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature ( $^{\circ}\text{C}$ )
MBRA120T3	SS12	20	14	20	0.50	-55 to +125
MBRA130T3	SS13	30	21	30		
MBRA140T3	SS14	40	28	40		
MBRA150T3	SS15	50	35	50	0.70	-55 to +150
MBRA160T3	SS16	60	42	60		
MBRA180T3	SS18	80	56	80	0.85	
MBRA1100T3	S110	100	70	100		

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage

## RATING AND CHARACTERISTIC CURVES (MBRA120T3 thru MBRA1100T3)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

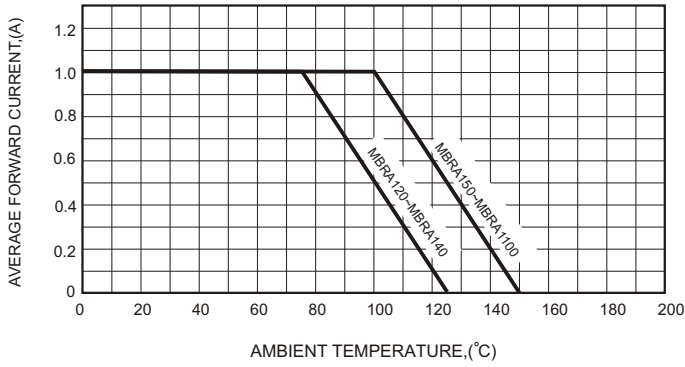


FIG.2-TYPICAL FORWARD CHARACTERISTICS

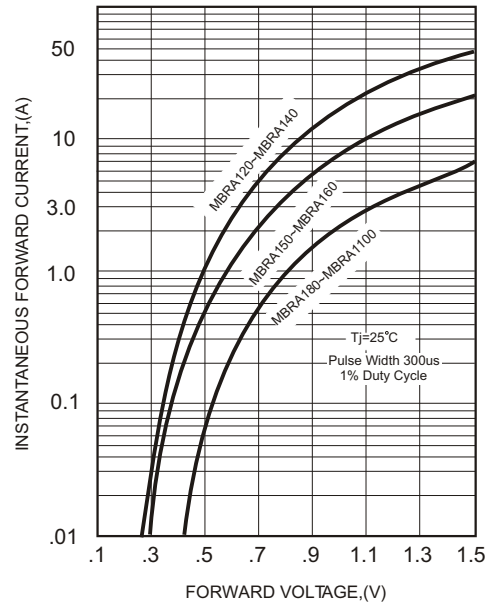


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

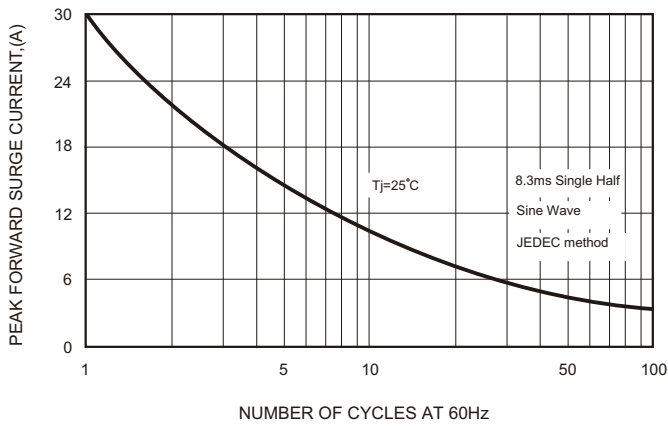


FIG.4-TYPICAL JUNCTION CAPACITANCE

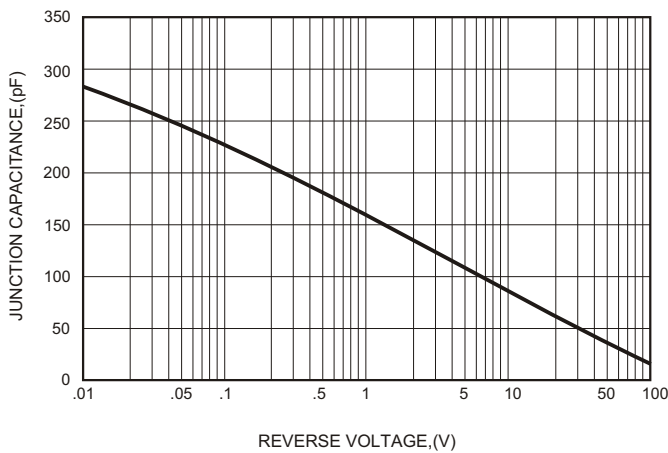


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

