

### Features

- Low power loss
- Ultra-fast recovery time for high efficiency
- Glass passivated chip junction
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020,LF maximum peak of 260 °C

### Typical Application

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer ,computer and telecommunication.

### Mechanical Data

- Package: SMB  
Molding compound meets UL 94 V-0 flammability rating,RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end



### Maximum Ratings (Ta=25°C Unless otherwise specified)

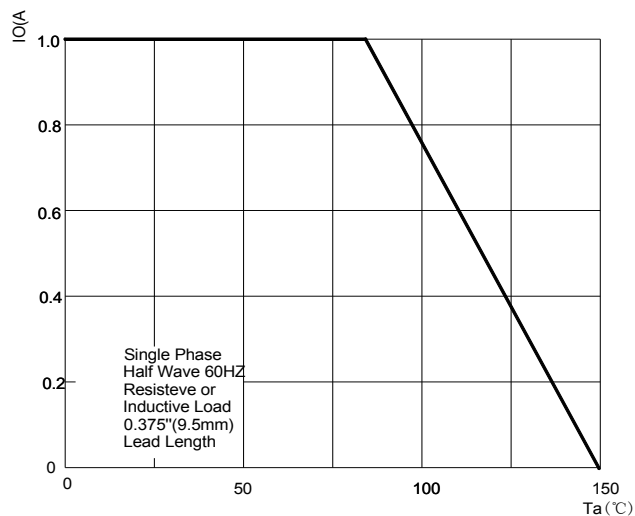
PARAMETER	Symbol	Unit	Conditions	MUR120SB
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		200
Average Forward Current	$I_{F(AV)}$	A	Ta=25°C	1.0
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	Ta=25°C 60Hz Half-sine wave,1 cycle, Ta=25°C	30
Storage Temperature	$T_{stg}$	°C		-55 ~ +150
Junction Temperature	$T_j$	°C		-55 ~ +150

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

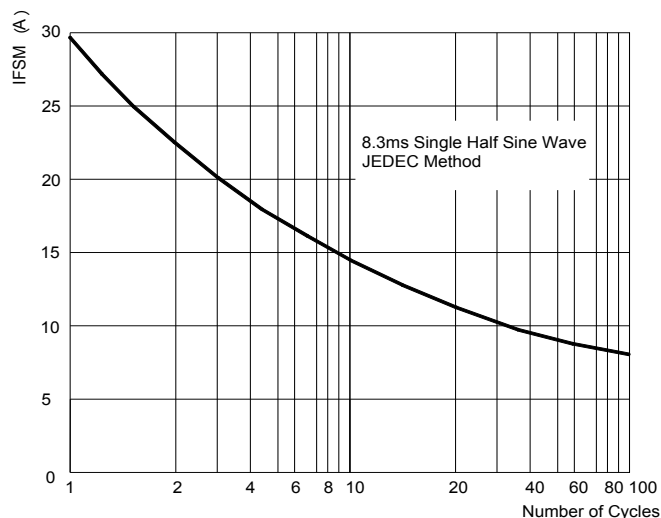
PARAMETER	Symbol	Unit	Condition	MUR120SB	
Peak Forward Voltage	$V_{FM}$	V	IF=1.0A	0.9	
Peak Reverse Current	$I_{RRM1}$	μA	$V_{RM}=V_{RRM}$	Ta=25°C	5.0
	$I_{RRM2}$			Ta=125°C	300
Reverse Recovery time	$T_{rr}$	ns	IF =0.5A   R =1A  RR =0.25A	25	
Thermal Resistance(Typical)	$R_{θJ-L}$	°C/W	Between junction and ambient	20	
Typical junction capacitance	$C_j$	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C	25	
Non repetitive reverse avalanche energy	ER	mJ	I(BR)R = 0.7 A, inductive load	10	

## Characteristics (Typical)

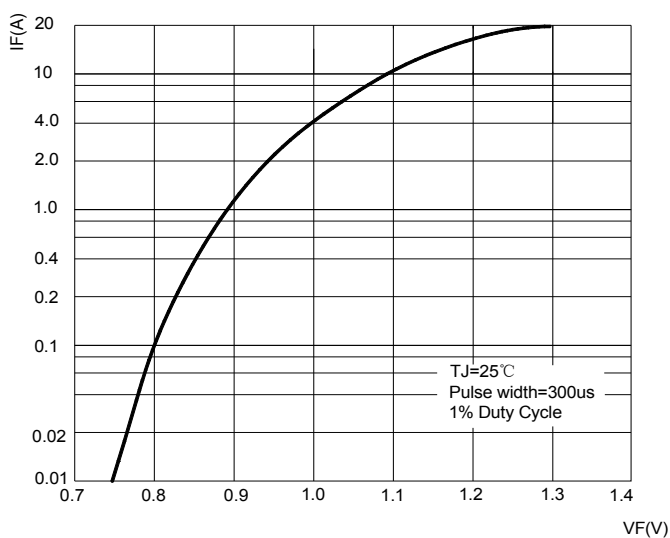
**FIG1: Forward Current Derating Curve**



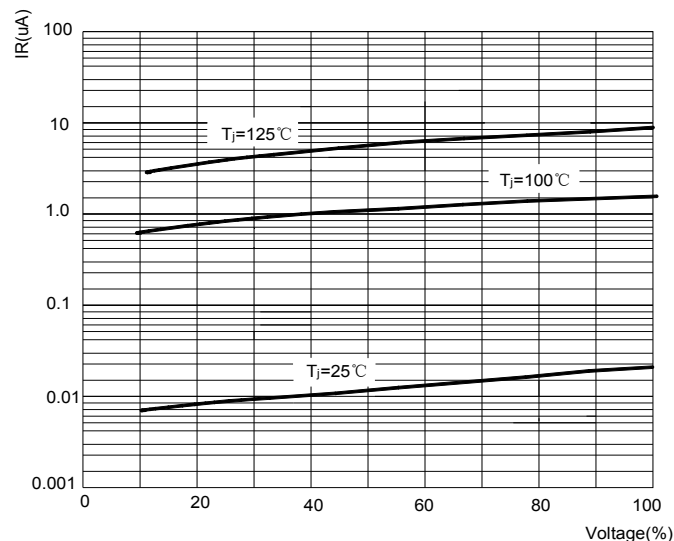
**FIG2: Surge Forward Current Capability**



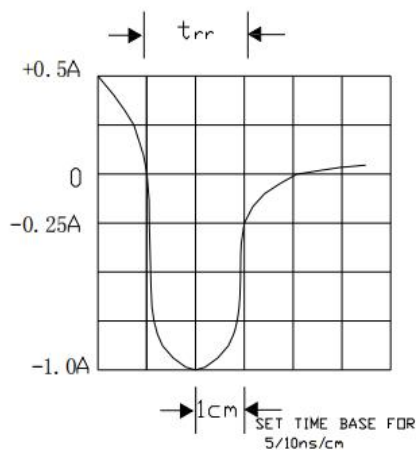
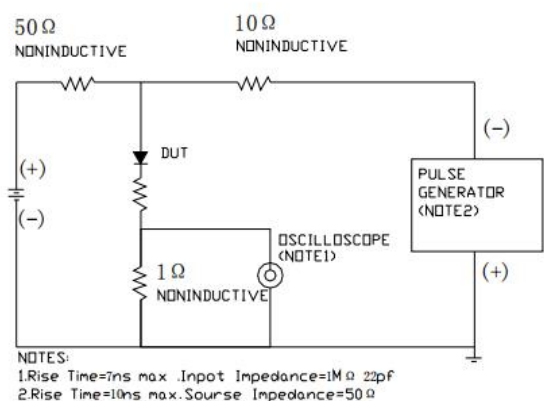
**FIG3: Instantaneous Forward Voltage**



**FIG4: Typical Reverse Characteristics**



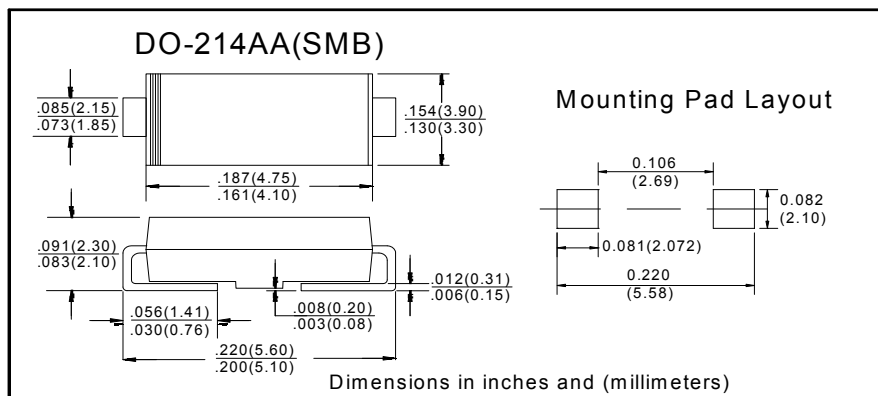
**FIG5: Diagram of circuit and Testing wave form of reverse recovery time**



## Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR120SB	SMB	3000	6000	48000	13" reel

## Outline Dimensions



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