

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
- AEC-Q101 qualified available

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: DO-214AB (SMC)
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	MUR420S
Repetitive Peak Reverse Voltage	V_{RRM}	V		200
Average Forward Current	$I_{F(AV)}$	A	Ta=25°C	4.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	Ta=25°C 60Hz Half-sine wave, 1 cycle, Ta=25°C	120
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	Conditio	MUR420S	
Peak Forward Voltage	V_{FM}	V	IF=4.0A	1.05	
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	Ta=25°C	3.0
	I_{RRM2}			Ta=125°C	100
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	12	
Non repetitive reverse avalanche energy	ER	mJ	I(BR)R = 0.7 A, inductive load	10	

Characteristics (Typical)

FIG1: Forward Current Derating Curve

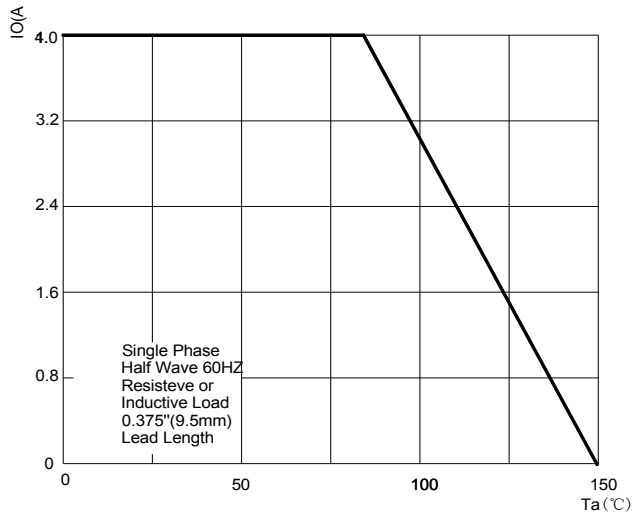


FIG2: Surge Forward Current Capability

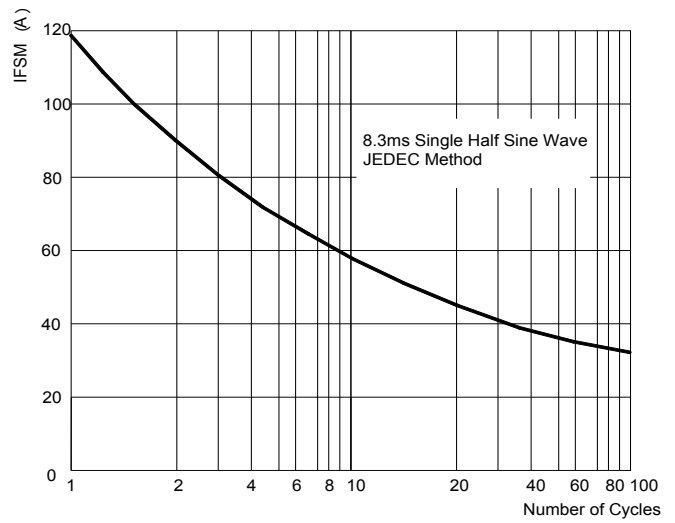


FIG3: Instantaneous Forward Voltage

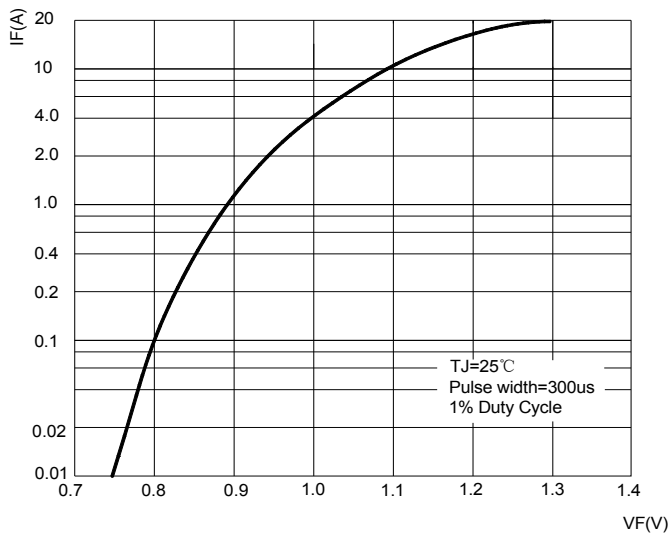


FIG4: Typical Reverse Characteristics

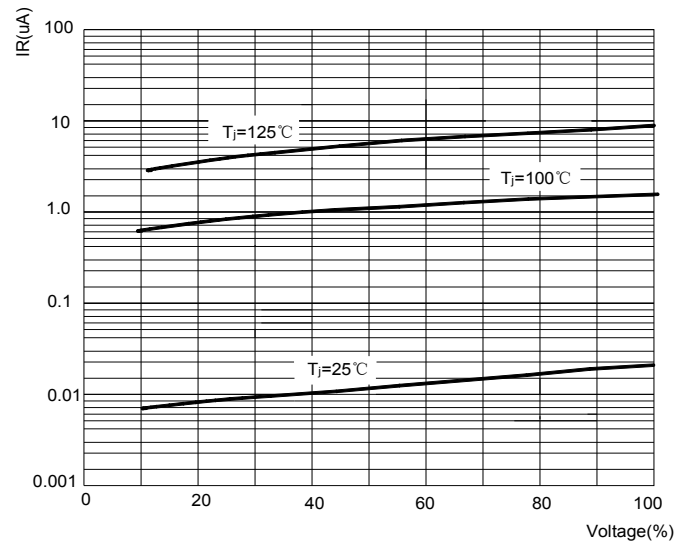
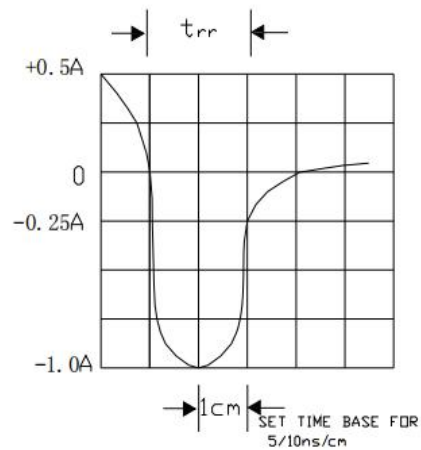
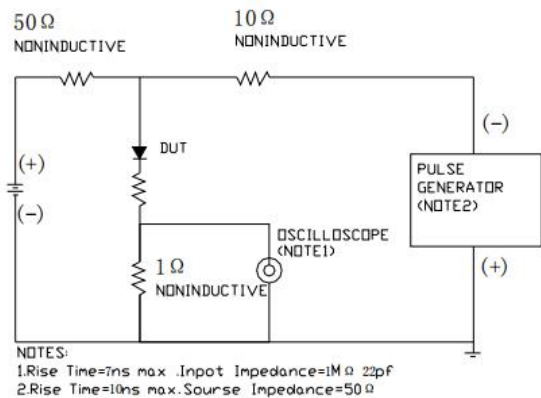


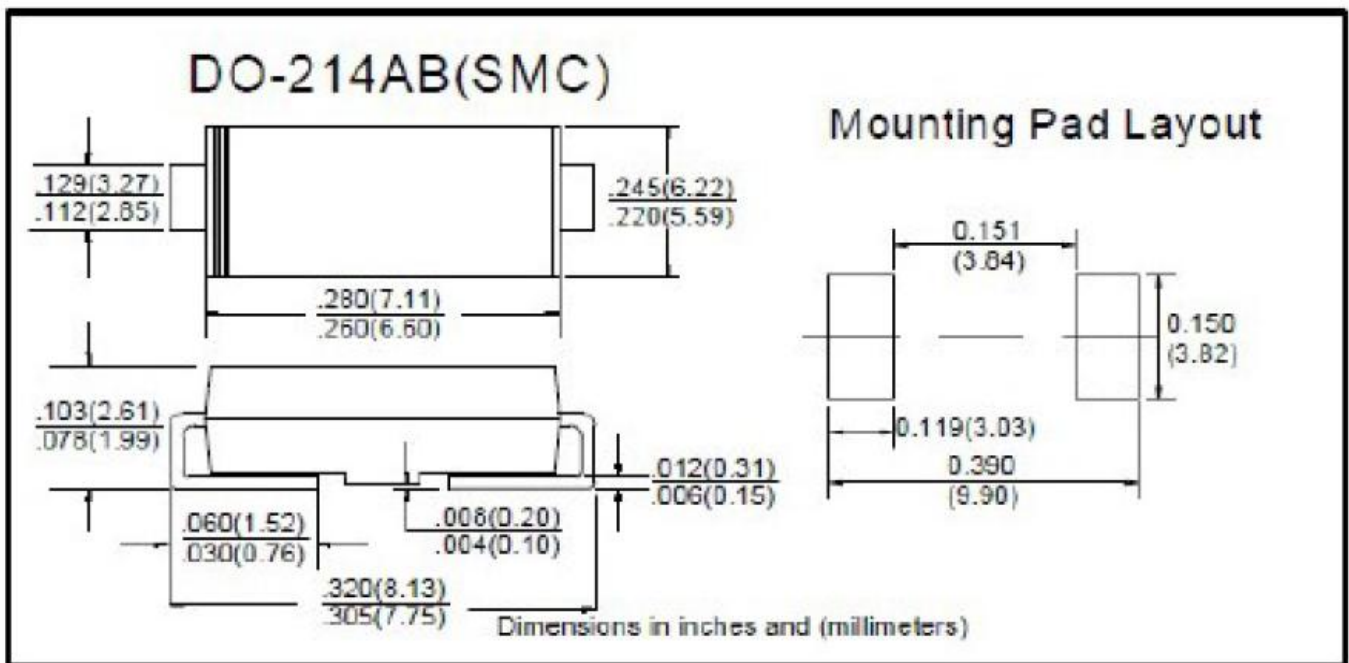
FIG5: Diagram of circuit and Testing wave form of reverse recovery time



Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR420S	SMC	3000	6000	42000	13" reel

Outline Dimensions



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