

HS3A THRU HS3M

High Efficient Rectifier

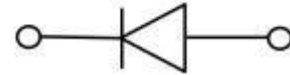
Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Ultra-fast reverse recovery time
- 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 of power supply, inverters, converters, and freewheeling diodes for consumer 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: Cathode line denotes the cathode end

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

PARAMETER	Symbol	Unit	Conditions	HS3							
				A	B	D	F	G	J	K	M
Repetitive Peak Reverse Voltage	V _{RRM}	V		50	100	200	300	400	600	800	1000
Average Forward Current	I _{F(AV)}	A	60HZ Half-sin wave,Resistance load, TL=110°C	3							
Surge(Nonrepetitive)Forward Current	I _{FSM}	A	60HZ Half-sine wave, 1 cycle, Ta=25°C	100							
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	Conditions	HS3						
				A	B	D	F	G	J	K
Peak Forward Voltage	V _{FM}	V	IFM =3.0A	1.0		1.3		1.7		
Peak Reverse Current	I _{RRM1}	µA	VRM=VRRM	10						
	I _{RRM2}			200						
Maximum reverse recovery time	T _{rr}	ns	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	50				75		
Thermal Resistance(Typical)	R _{θJ-A}	°C/W	Between junction and ambient	47 ¹⁾						
	R _{θJ-L}		Between junction and terminal	13 ¹⁾						

Notes:

1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.



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■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

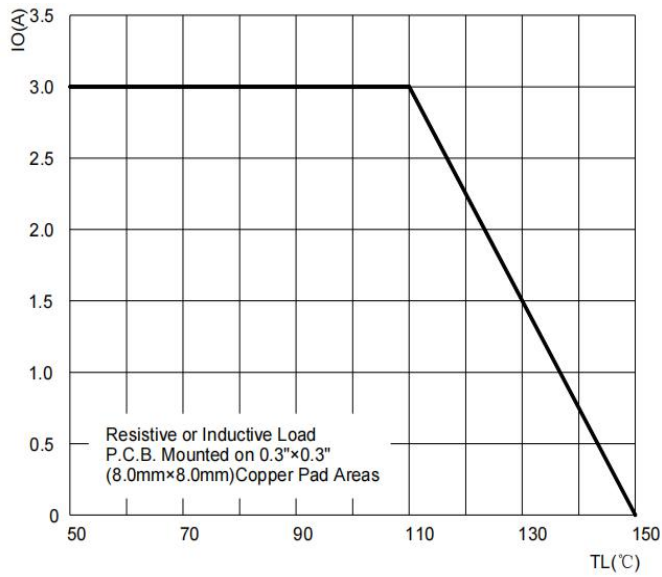


FIG2: Surge Forward Current Capability

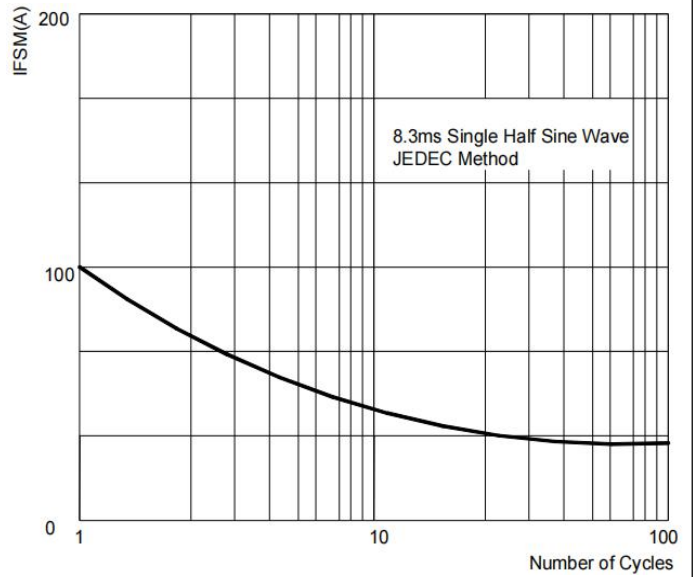


FIG3: Instantaneous Forward Voltage

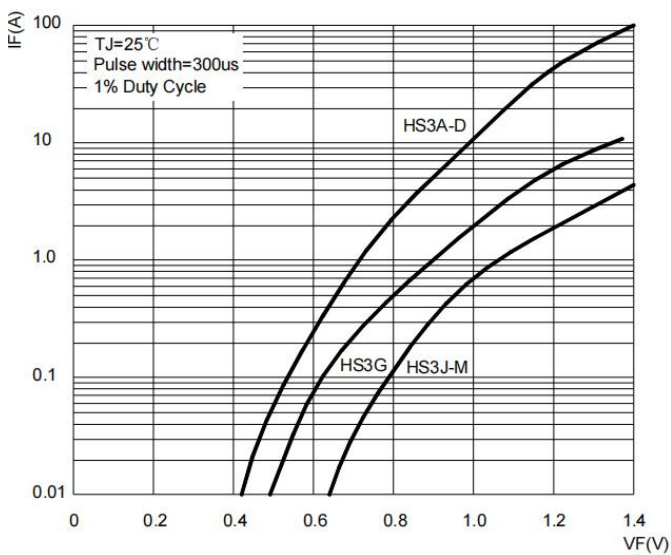


FIG4: Typical Reverse Characteristics

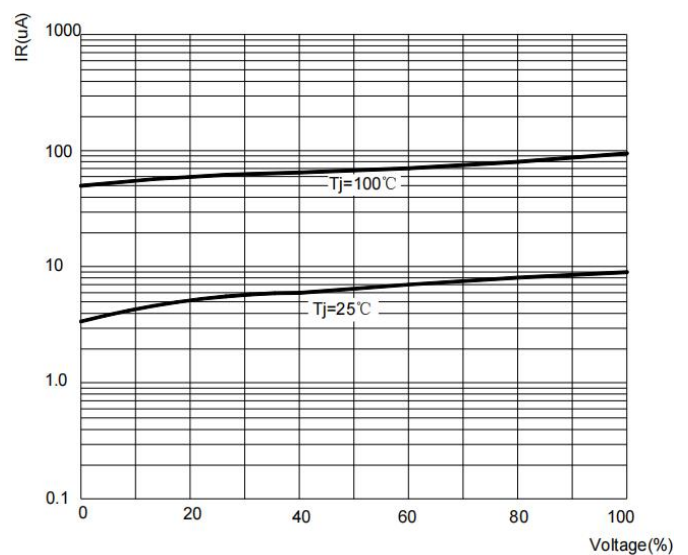
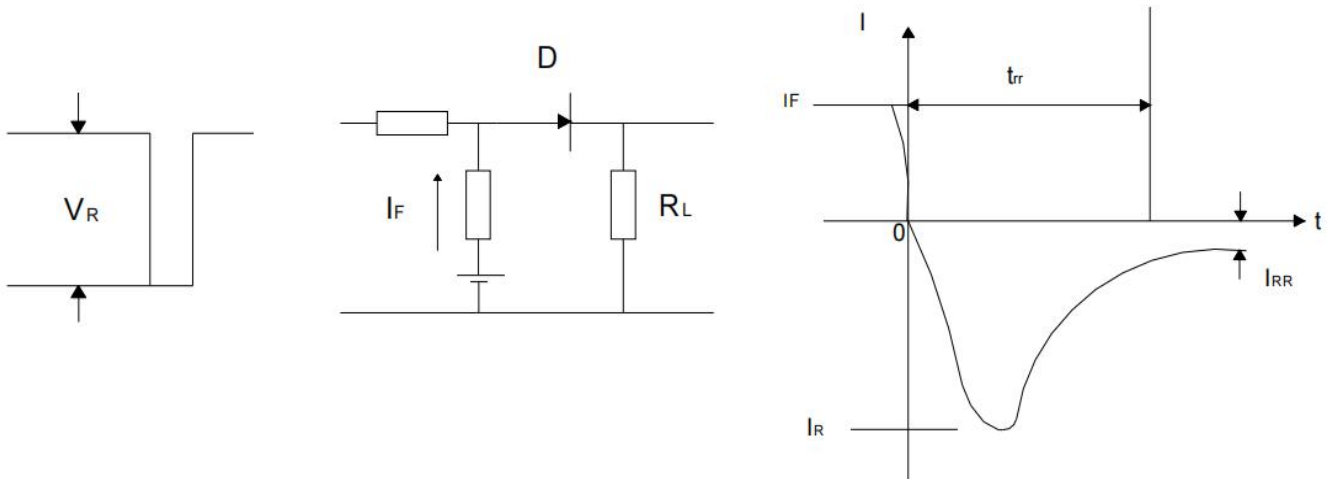


FIG5: Diagram of circuit and Testing wave form of reverse recovery time

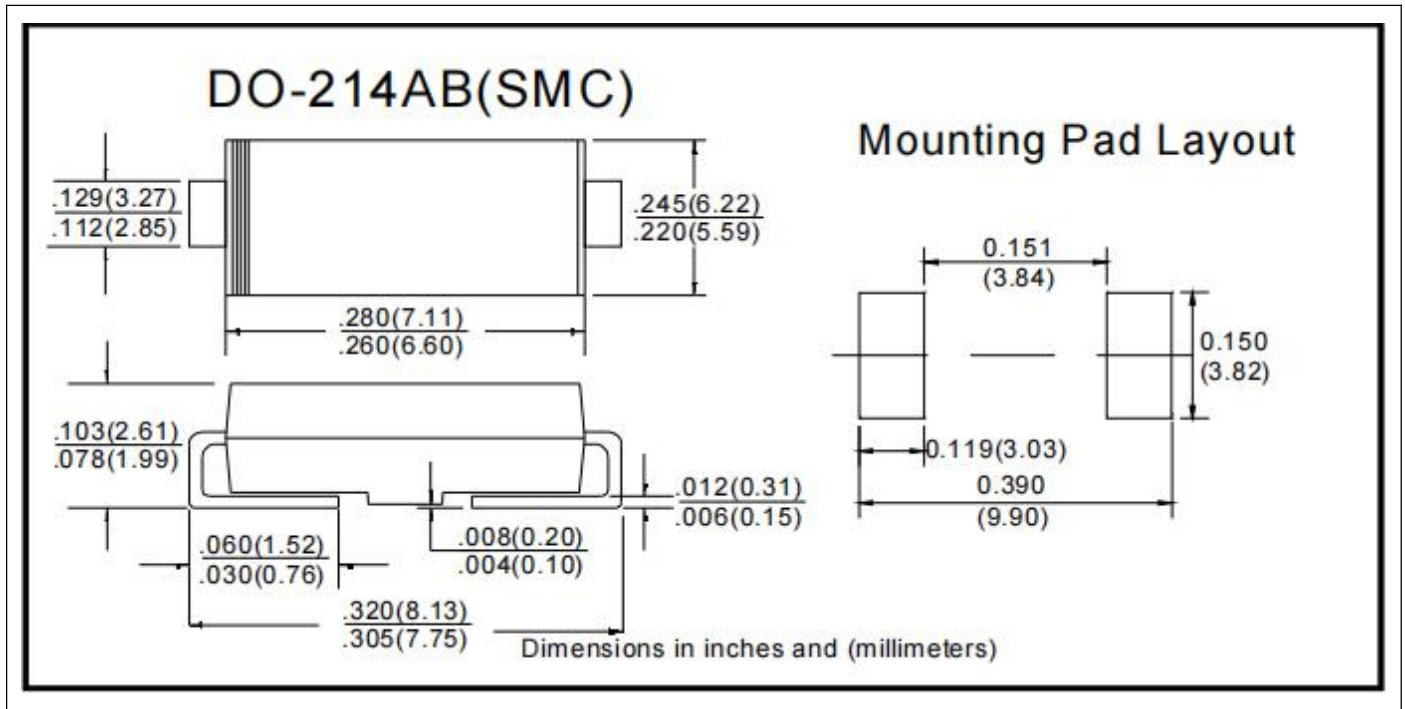


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Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HS3A~ HS3M	DO-214AB(SMC)	3000	6000	42000	13" reel

Outline Dimensions



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