

## Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super fast reverse recovery time
- Storage Period: 2 years
- Meets MSL level 3, per J-STD-020, LF maximum peak of 260 °C

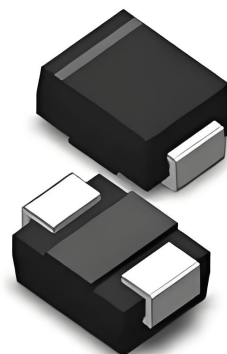
## Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication.

## Mechanical Data

- **Package:** DO-214AA (SMB)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

DO-214AA (SMB)



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

PARAMETER	SYMBOL	UNIT	HS3AB	HS3BB	HS3DB	HS3FB	HS3GB	HS3JB	HS3KB	HS3MB
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	300	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	210	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	300	400	600	800	1000
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	IO	A	3.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	100							
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			200							
Current squared time @1ms≤t≤8.3ms Tj=25°C	I²t	A²s	41.5							
Storage temperature	Tstg	°C	-55 ~ +150							
Junction temperature	Tj	°C	-55 ~ +150							

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HS3AB	HS3BB	HS3DB	HS3FB	HS3GB	HS3JB	HS3KB	HS3MB	
Maximum instantaneous forward voltage	V <sub>F</sub>	V	I <sub>F</sub> M=3.0A	1.0			1.3	1.7				
Maximum reverse recovery time	t <sub>r</sub>	ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>r</sub> =0.25A	50					75			
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5								
			T <sub>j</sub> =125°C	100								
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	60			40	24				

### ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HS3AB	HS3BB	HS3DB	HS3FB	HS3GB	HS3JB	HS3KB	HS3MB
Typical Thermal resistance	R <sub>θJ-A</sub> (1)	°C/W	65							
	R <sub>θJ-L</sub> (1)		18							
	R <sub>θJ-C</sub> (1)		15							

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

### ■ Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>L</sub> Curve

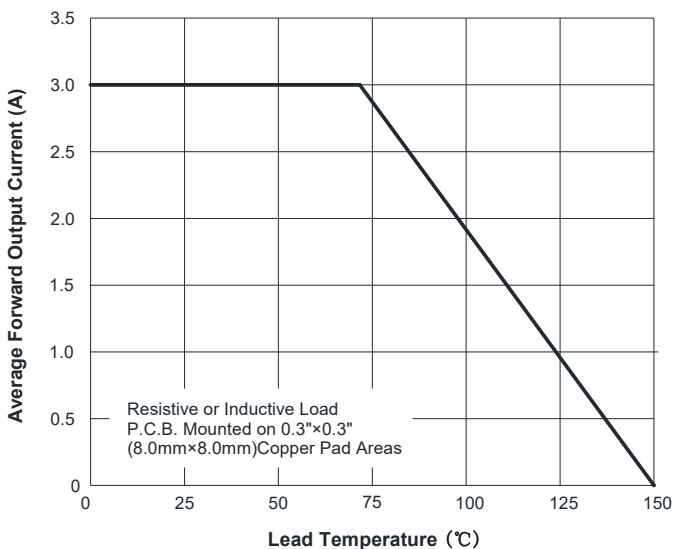


FIG.2: Forward Surge Current Capability

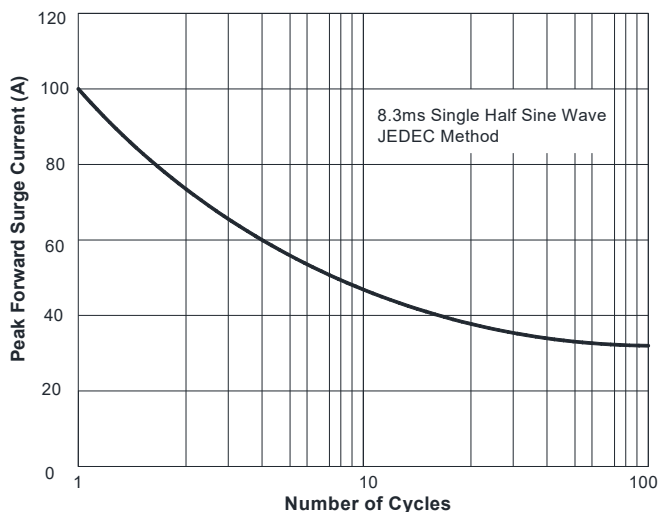


FIG.3: Typical Forward Voltage

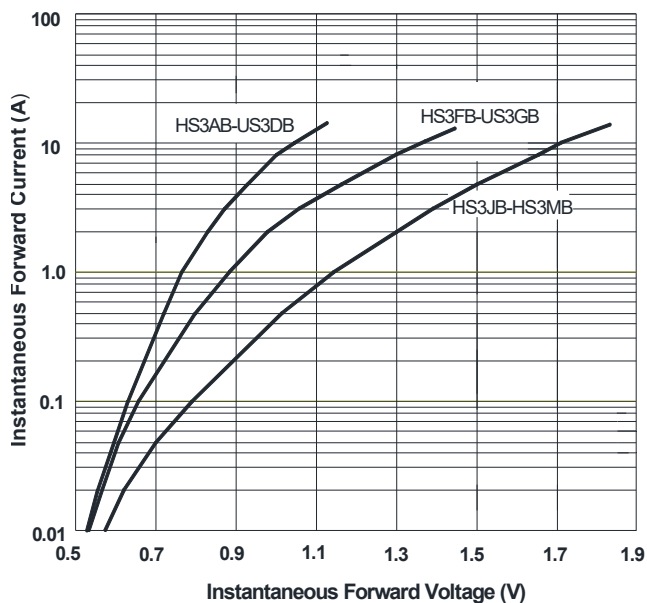


FIG.4: Typical Reverse Characteristics

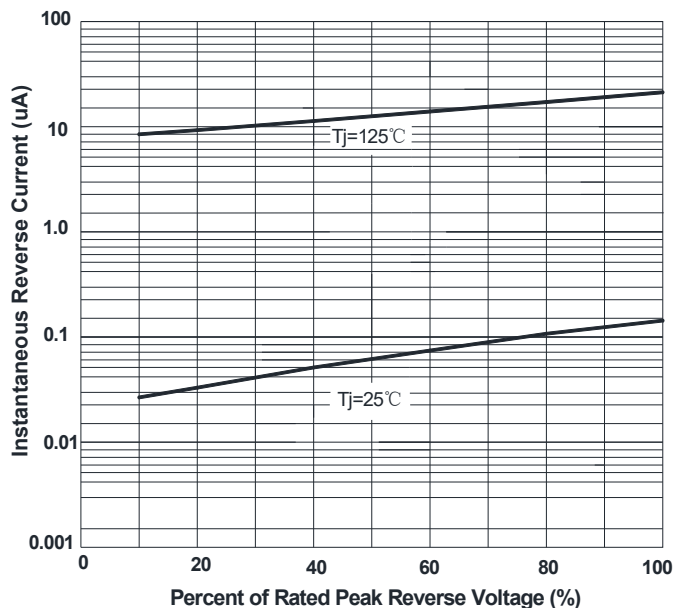
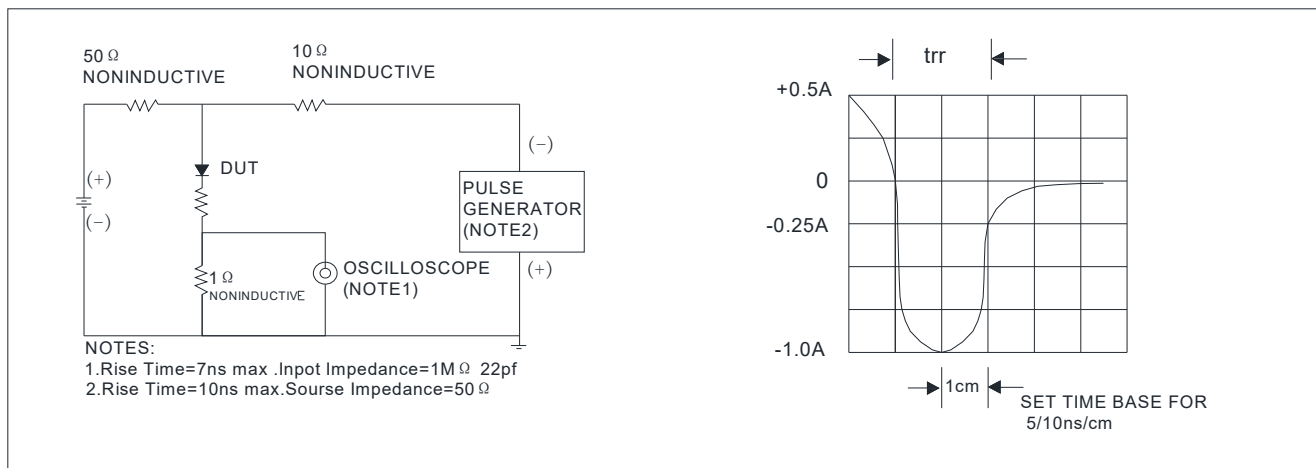


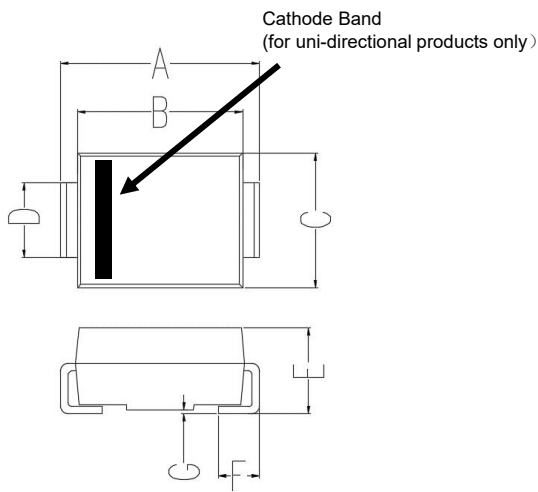
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



## Ordering Information

Part Number	Delivery Mode	Quantity(pcs/reel)	Marking
HS3AB	Tape & Reel,7"reel	3000	HS3A
HS3BB	Tape & Reel,7"reel	3000	HS3B
HS3DB	Tape & Reel,7"reel	3000	HS3D
HS3FB	Tape & Reel,7"reel	3000	HS3F
HS3GB	Tape & Reel,7"reel	3000	HS3G
HS3JB	Tape & Reel,7"reel	3000	HS3J
HS3KB	Tape & Reel,7"reel	3000	HS3K
HS3MB	Tape & Reel,7"reel	3000	HS3M

## ■ Dimensions (SMB/DO-214AA)



Dim	Inches		Millimeters	
	Min	Max	Min	Max
<b>A</b>	0.205	0.217	5.21	5.51
<b>B</b>	0.167	0.187	4.25	4.75
<b>C</b>	0.137	0.147	3.48	3.73
<b>D</b>	0.076	0.083	1.93	2.10
<b>E</b>	0.078	0.103	1.99	2.61
<b>F</b>	0.035	0.055	0.90	1.40
<b>G</b>	0.000	0.008	0.00	0.20