# HS3A thru HS3M

DO-214AB(SMC)



High Efficient Surface Mount Rectifiers Reverse Voltage 50~1000V Forward Current 3A

## **Features**

- Glass passivated chip junction
- For surface mounted applications
- High forward surge capability
- Low forward voltage drop
- · Ideal for automated placement
- Add suffix "E" for Halogen Free
- High temperature soldering guaranteed: 260 °C/10 seconds at terminals

# **Mechanical Data**

- Case:DO-214AB (SMC)
- Molding compound meets UL 94 V-0 flammability rating
- Terminals: Solder plated, solderable per J-STD-002, and JESD 22-B102
- · Polarity: laser band denotes cathode end

## **Maximum Ratings** (TA = 25 °C unless otherwise noted)

			,						
Parameter	Symbol	HS3A	HS3B	HS3D	HS3G	HS3J	нѕзк	HS3M	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV) <sup>1)</sup>	3.0						А	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	125						A	
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150						°C	

## Electrical Characteristics (TA = 25 °C unless otherwise noted)

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Parameter	Test Conditions	Symbol	HS3A	HS3B	HS3D	HS3G	HS3J	нѕзк	HS3M	Unit
Maximum instantaneous	IF=3A,Ta=25℃	V <sub>F</sub>	1.0 1.3			1.7			Volts	
forward voltage	IF=3A,Ta=125℃	۷F	1.15							VOIIS
Maximum DC reverse	Ta=25℃		5.0							
current at rated DC blocking voltage	Ta=125℃	I <sub>R</sub>	50							μA
Maximum reverse recovery time	I <sub>F</sub> =0.5A,I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	t <sub>rr</sub>	50.0 75.0					ns		
Typical junction capacitance	4.0 V, 1 MHz	CJ	27.3						pF	
	Juntion to Lead <sup>1)</sup>	$R_{ extsf{ heta}JL}$	R <sub>0JL</sub> 3.7							
Typical thermal	Juntion to Ambient <sup>2)</sup>	R <sub>0JA</sub> 56.0						°C/W		
resistance	Juntion to Case <sup>2)</sup>	$R_{ extsf{ heta}JC}$	21.0							0/10
	Juntion to Lead <sup>2)</sup>	$R_{\theta JL}$	6.5							

Note:1), The thermal resistance from junction to lead, mounted on FR-4 P.C.B with 30x30mm copper pads

2), The thermal resistance from junction to ambient, case or lead, mounted on FR-4 P.C.B with 8x8mm copper pads



# <u>HS3A thru HS3M</u>

High Efficient Surface Mount Rectifiers Reverse Voltage 50~1000V Forward Current 3A

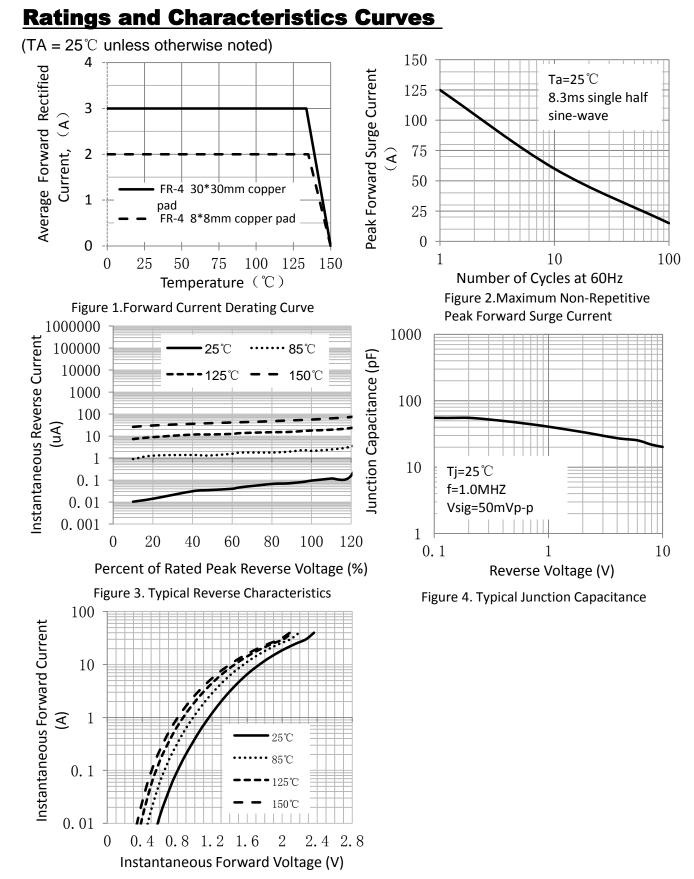


Figure 5. Typical Instantaneous Forward Characteristics

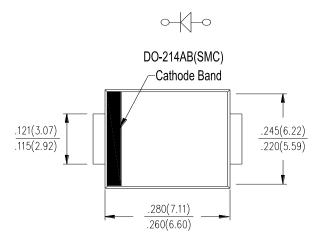


# <u>HS3A thru HS3M</u>

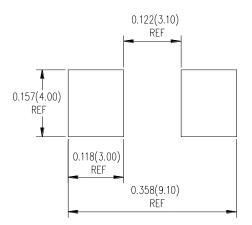
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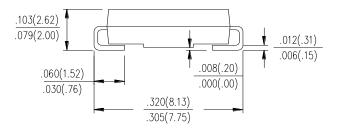
## **Package Outline Dimensions**

in inches (millimeters)



Mounting Pad Layout

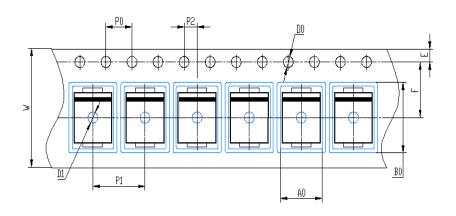




# **Packing Information**

3000 pcs/Reel, 14 Reels/Box; 16mm Tape, 13" Reel

#### **Tape & Reel Specification**



Symbols	SMC(mm)
W	16±0.2
E	1.75±0.1
F	7.5±0.05
D0	1.5±0.1
D1	1.50 +0.1/-0
P0	4.0±0.1
P1	8.0±0.1
P2	2.0±0.05
A0	6.22±0.1
B0	8.31±0.1



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