

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable



AEC-Q101 Qualified

### Mechanical Data

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram
- Meets MSL 1 Requirements
- ESD Rating:MM:Class M4 ;HBM:Class 3B

SMA(DO-214AC)



### Typical Applications

For use in low voltage ,high frequency inverters ,DC/DC converters,  
free wheeling ,and polarity protection applications

Marking:

JF:Logo  
xxxx:Date code  
SS34-V:Type

### Maximum Ratings

(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum average forward rectified current (see fig.1)	$I_F(AV)$	3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	$I_{FSM}$	80	A
Operating junction temperature range	$T_J$	-55 to +150	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C

## Electrical Characteristcs (T<sub>a</sub>=25°C Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	T <sub>J</sub> =25°C	I <sub>F</sub> =1.0A	V <sub>F</sub> <sup>1)</sup>	0.40	-	V
		I <sub>F</sub> =3.0A		0.51	0.55	
	T <sub>J</sub> =125°C	I <sub>F</sub> =1.0A		0.30	-	
		I <sub>F</sub> =3.0A		0.43	0.47	
Reverse current	T <sub>J</sub> =25°C	V <sub>R</sub> =40V	I <sub>R</sub> <sup>2)</sup>	-	100	μA
	T <sub>J</sub> =125°C			-	15	mA
	T <sub>J</sub> =125°C	V <sub>R</sub> =32V		-	12	
Typical junction capacitance	4V,1MHz		C <sub>J</sub>	160		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

## Thermal Characteristics

Parameter	Symbol	SS34-V	Unit
Typical thermal resistance <sup>3)</sup>	R <sub>θJA</sub>	88.0	°C/W
	R <sub>θJL</sub>	28.0	

3.Mounted with 1.0" x 1.0" (25.4 mm x 25.4 mm) copper pad areas 1 oz FR4 Board

## Availabale Pack Information

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)
SS34-V-SMA	T/R	Φ330	7500	330×35×333	2	364×364×360	8

Fig.1-Forward Current Derating Curve

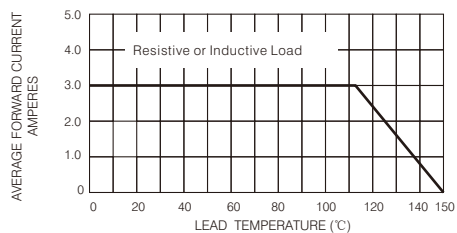


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

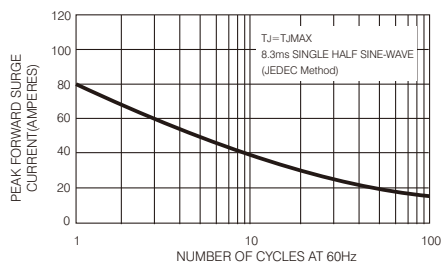


Fig.3-Typical Instantaneous Forward Characteristics

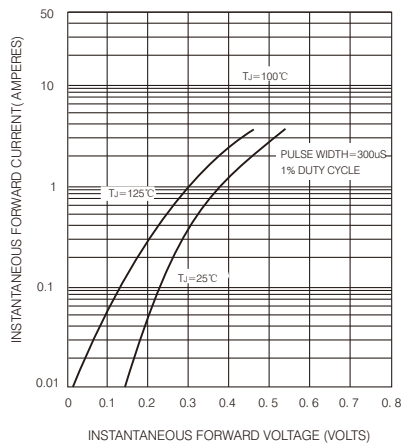


Fig.4-Typical Reverse Characteristics

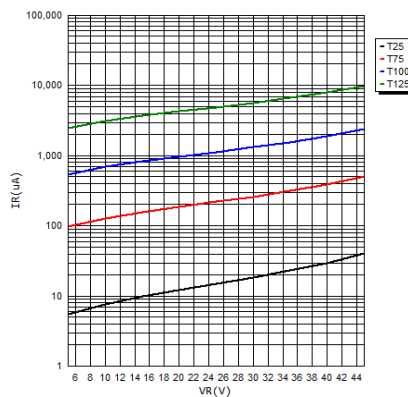
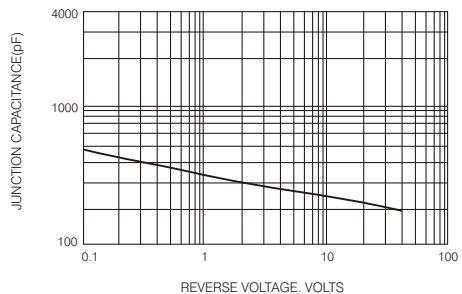
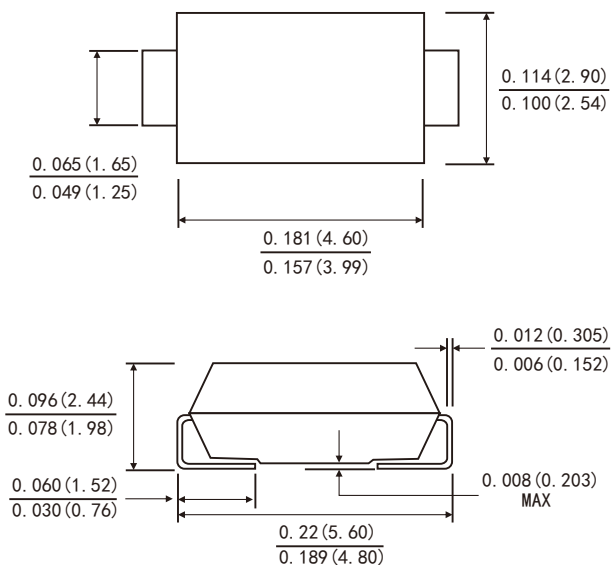


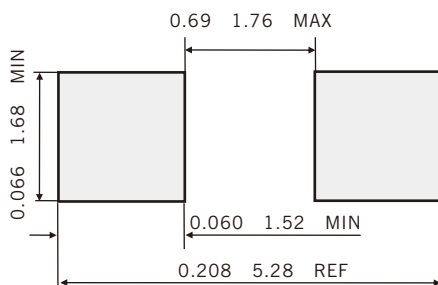
FIG.5-TYPICAL JUNCTION CAPACITANCE



## SMA(DO-214AC)



## Suggested PAD Layout



Dimensions in inches and (millimeters)

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