

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

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
SS110-V:Type

Maximum Ratings

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current (see fig.1)	$I_F(AV)$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	30	A
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{stg}	-55 to +150	°C

RATINGS AND CHARACTERISTIC OF SS110-V

Electrical Characteristics (T_A=25°C Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous Forward Voltage	I _F = 0.5A	T _A = 25°C	V _F ¹⁾	0.70		V
		T _A = 100°C		0.60	-	
		T _A = 125°C		0.56		
	I _F = 1.0A	T _A = 25°C		0.78	0.82	
		T _A = 100°C		0.68	-	
		T _A = 125°C		0.64		
Reverse Current	V _R = 100V	T _A = 25°C	I _R ²⁾	-	5	μA
		T _A = 100°C		-	0.2	mA
		T _A = 125°C		-	1.0	
Typical Junction Capacitance	4V, 1MHz		C _J	33		pF

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

2. Pulse test: pulse width ≤ 40ms

Thermal Characteristics

Parameter	Symbol	SS110-V	Unit
Typical thermal resistance ³⁾	R _{θJA}	88.0	°C/W
	R _{θJL}	28.0	

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

Available 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)
SS110-V-SMA	T/R	Φ330	5000	330×35×333	2	364×364×360	8

Fig.1-Forward Current Derating Curve

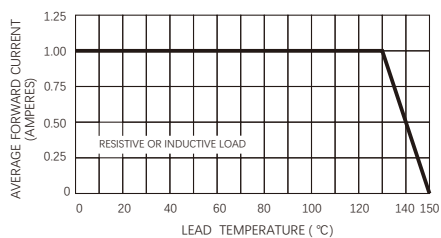


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

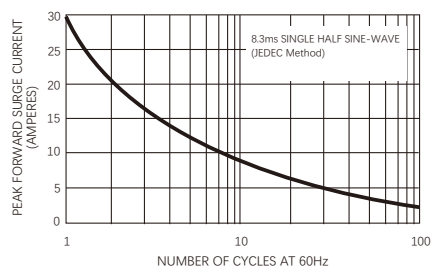


Fig.3-Typical Instantaneous Forward Characteristics

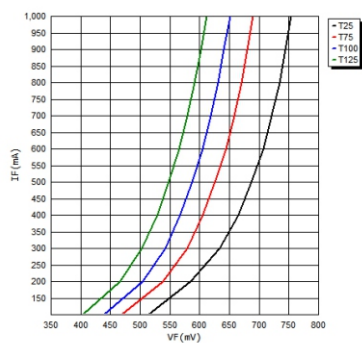


Fig.4-Typical Reverse Characteristics

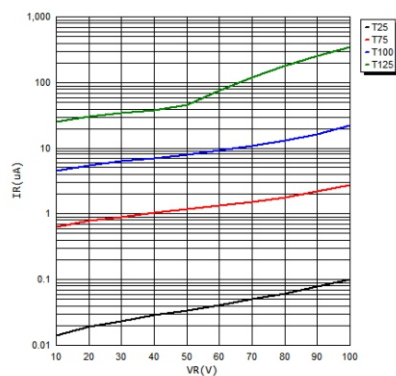
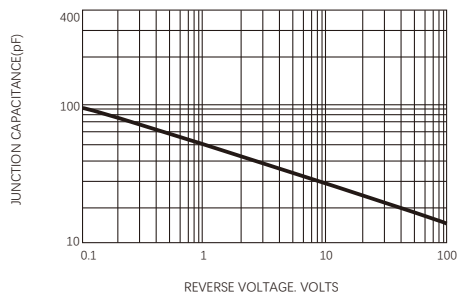


FIG.5-TYPICAL JUNCTION CAPACITANCE



The image contains two technical drawings of boxes with dimensions in inches and millimeters.

Top Drawing: Rectangular Box

- Height:**
 - Top flange: 0.114 (2.90)
 - Bottom flange: 0.100 (2.54)
 - Body: 0.065 (1.65)
 - Base: 0.049 (1.25)
- Width:**
 - Top flange: 0.181 (4.60)
 - Bottom flange: 0.157 (3.99)

Bottom Drawing: Trapezoidal Box

- Height:**
 - Top flange: 0.012 (0.305)
 - Bottom flange: 0.006 (0.152)
 - Body: 0.096 (2.44)
 - Base: 0.078 (1.98)
- Width:**
 - Top flange: 0.22 (5.60)
 - Bottom flange: 0.189 (4.80)
- Other Dimensions:**
 - Side flange: 0.008 (0.203) MAX
 - Base offset: 0.060 (1.52)
 - Base offset: 0.030 (0.76)

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