

FEATURES

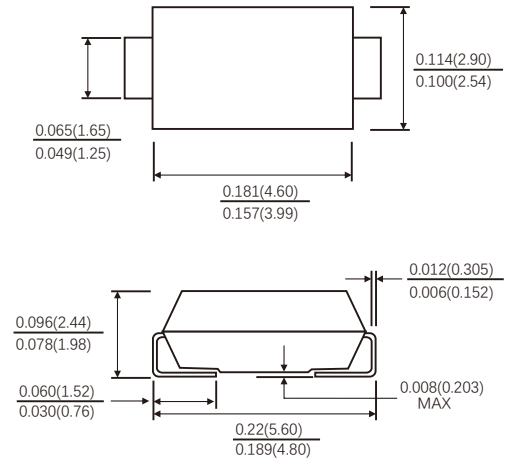
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature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



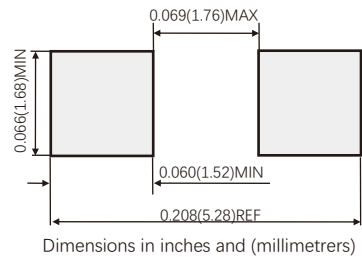
MECHANICAL DATA

- 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)



Suggested PAD Layout



TYPICAL APPLICATIONS

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

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	80	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 CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	I _F =3.0A	T _J =25°C	V _F ¹⁾	0.48	0.55	V
		T _J =100°C		0.45	-	
		T _J =125°C		0.43	-	
	I _F =1.0A	T _J =25°C		0.39	-	
		T _J =100°C		0.34	-	
		T _J =125°C		0.31	-	
Reverse current	V _R =80V	T _J =25°C	I _R ²⁾	-	50	μA
		T _J =100°C		-	1.2	mA
		T _J =125°C		-	4.5	
Typical junction capacitance	4V,1MHz		C _J	460		pF

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

2.Pulse test: pulse width ≤40ms

THERMAL CHARACTERISTICS

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

3.P.C.B. mounted with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

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)
SS38SL-SMA	T/R	Φ330	5000	330×35×333	2	364×364×360	8

FIG.1-FORWARD CURRENT DERATING CURVE

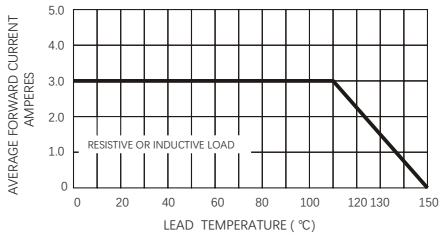


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

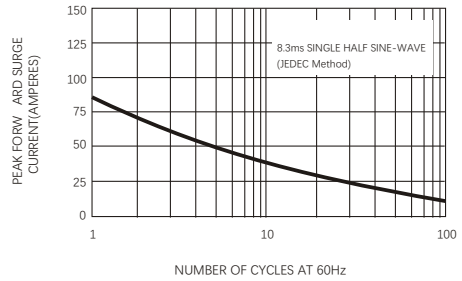


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

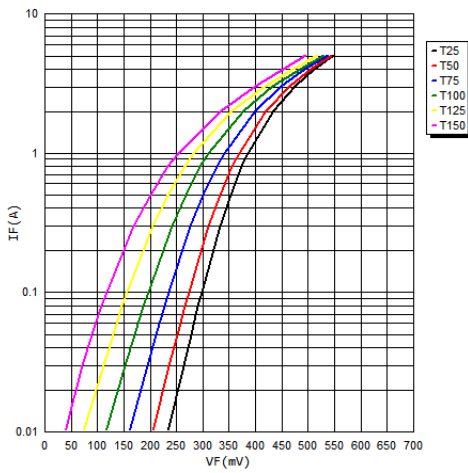
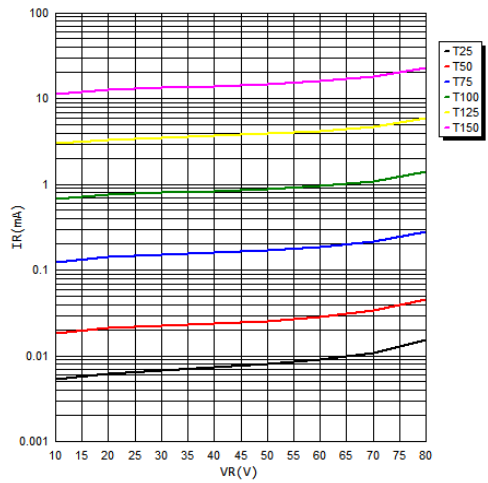


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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