SEMICONDUCTOR

SS84C-V

AUTOMOTIVE SCHOTTKY BARRIER RECTIFIER

Reverse Voltage-40Volts
Forward Current-8.0Amperes

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℃/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable

Pb RoHS COMPLIANT

RoHS REACH IATF16949认证

AEC-Q101 Qualified

SMC(DO-214AB)

MECHANICAL DATA

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.007ounce,0.21 gram

Marking:

JF:Logo
xxxx:Date code
SS84C-V:Type

TYPICAL APPLICATIONS

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

MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum average forward rectified current	$I_{F(AV)}$	8.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	150	A
Operating junction temperature range	T_J	-55 to +150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

ELECTRICAL CHARACTERISTCS（T_A=25℃ Unless otherwise noted）

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous Forward Voltage	T_J=25℃	I_F=1A	V_F 1)	0.38	-	V
		I_F=3A		0.43	-	
		I_F=8A		0.51	0.55	
	T_J=125℃	I_F=1A		0.31		
		I_F=3A		0.36	-	
		I_F=8A		0.47	-	
Reverse Current	T_J=25℃	V_R=40V	I_R 2)	-	100	μA
	T_J=125℃			-	50	mA
Typical Junction Capacitance	4V,1MHz		C_J	420		pF

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

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTCS

Parameter	Symbol	SMC	Unit
Typical thermal resistance 3)	$R_{\theta JA}$	55.0	℃/W
	$R_{\theta JL}$	17.0	

3.P.C.B. mounted with 0.55" x 0.55" (14.0 mm x 14.0 mm) copper pad areas

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)	Quantity (carton)
SS84C-SMC	T/R	Φ330	3000	338×338×39	2	370×370×360	8	48

Fig.1-Forward Current Derating Curve

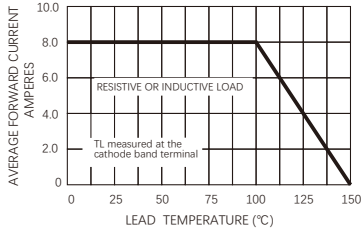


Fig.2-maximum Non-repetitive Peak Forward Surge Current

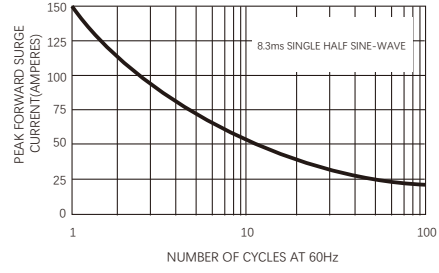


Fig.3-Typical Instantaneous Forward Characteristics

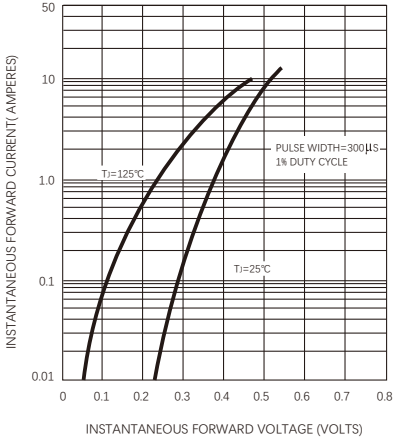


Fig.4-Typical Reverse Characteristics

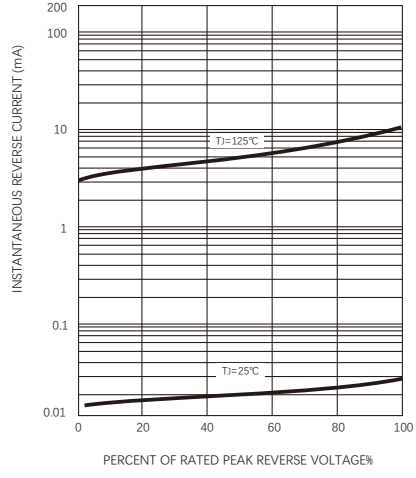
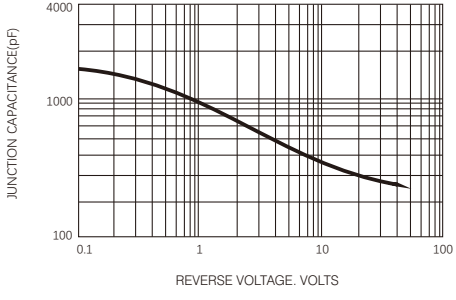
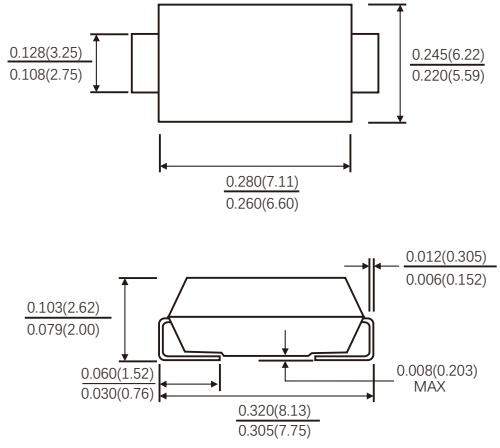


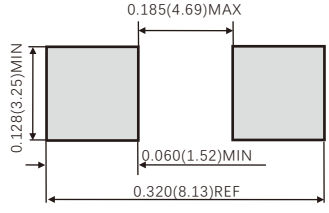
Fig.5-Typical Junction Capacitance



SMC(DO-214AB)



Suggested PAD Layout



Dimensions in inches and (millimeters)

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