

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 2011/65/EU



RoHS
COMPLIANT



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

TYPICAL APPLICATIONS

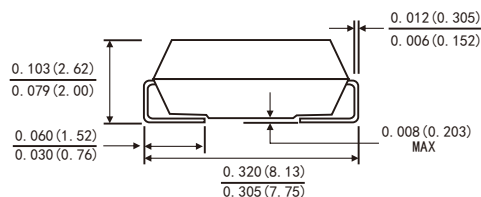
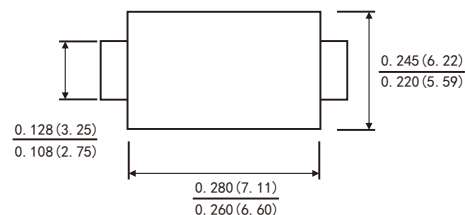
For use in low voltage ,high frequency inverters ,DC/DC converters,
free wheeling ,and polarity protection applications

MAXIMUM RATINGS

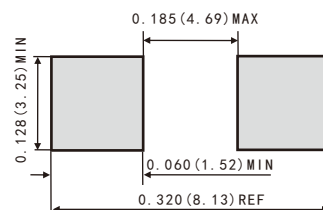
(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	200	V
Maximum average forward rectified current	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

SMC(DO-214AB)



Suggested PAD Layout



Dimensions in inches and (millimeters)

RATINGS AND CHARACTERISTIC OF SS320LC

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	$I_F=3.0\text{A}$	$T_A=25^{\circ}\text{C}$	V_F ¹⁾	0.82	0.85	V
		$T_A=100^{\circ}\text{C}$		0.71	-	
		$T_A=125^{\circ}\text{C}$		0.67	-	
Reverse current	$V_R=200\text{V}$	$T_A=25^{\circ}\text{C}$	I_R ²⁾	-	10	μA
		$T_A=100^{\circ}\text{C}$		-	200	
		$T_A=125^{\circ}\text{C}$		-	1000	
Typical junction capacitance	4V, 1MHz		C_J	70		pF

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

2.Pulse test: pulse width $\leq 40\text{ms}$

THERMAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

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

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

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)
SS320LC-SMC	T/R	$\Phi 300$	3000	340×340×50	2	370×370×370	6

RATINGS AND CHARACTERISTIC OF SS320LC

FIG.1-FORWARD CURRENT DERATING CURVE

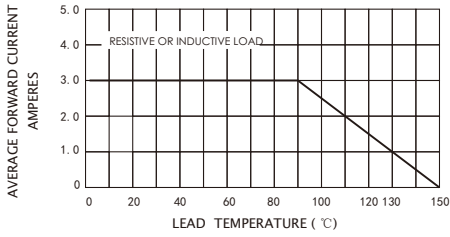


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

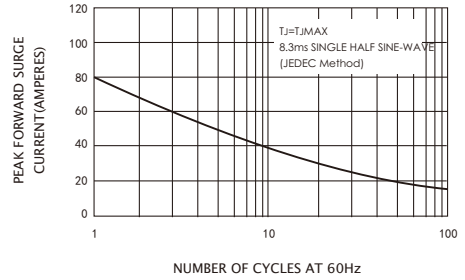


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

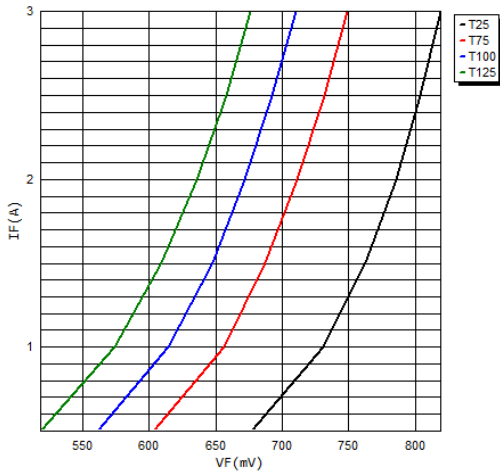


FIG.4-TYPICAL REVERSE CHARACTERISTICS

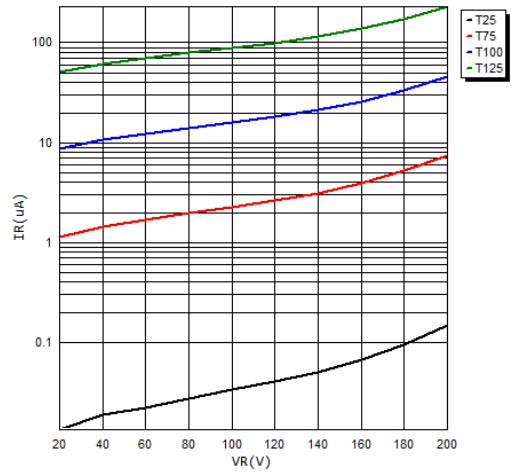


FIG.5-TYPICAL JUNCTION CAPACITANCE

