

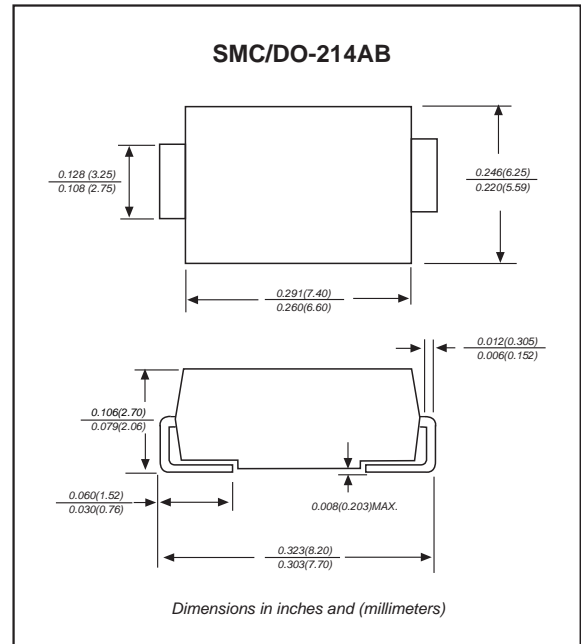
### Features

- Plastic package has underwriters laboratories flammability classification 94V-0
- For surface mounted applications in order to optimize board space
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Ultra low forward voltage drop
- Low power losses, high efficiency operation
- High current capability and surge capability
- Low thermal resistance package
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

### Mechanical data

- **Case:** JEDEC SMC/DO-214AB molded plastic body
- **Terminals:** Solder plated, solderable per J-STD-002
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		$I_O$			10.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$			120	A
Reverse current	$V_R = 40\text{V}$ , $T_A = 25^{\circ}\text{C}$	$I_R$			0.2	mA
	$V_R = 40\text{V}$ , $T_A = 100^{\circ}\text{C}$				20	
Thermal resistance (1)	Junction to Ambient	$R_{\theta JA}$		65		$^{\circ}\text{C}/\text{W}$
	Junction to Lead	$R_{\theta JL}$		8		
Storage temperature		$T_{STG}$	-55		+150	$^{\circ}\text{C}$

Note1: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas.

SYMBOLS	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_{Ji}$ ( $^{\circ}\text{C}$ )
SS1040S-C-Q1	40	28	40	0.60	-55 to +150

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=8.0\text{A}$

### Rating and characteristic curves

FIG.1: Typical forward characteristics

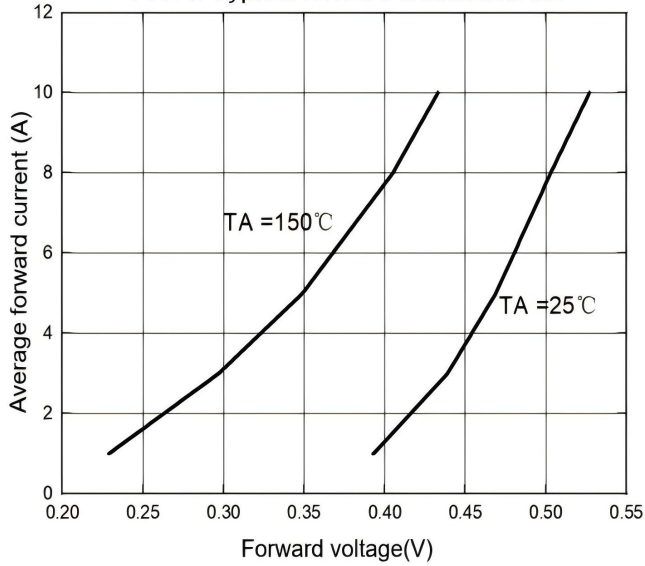
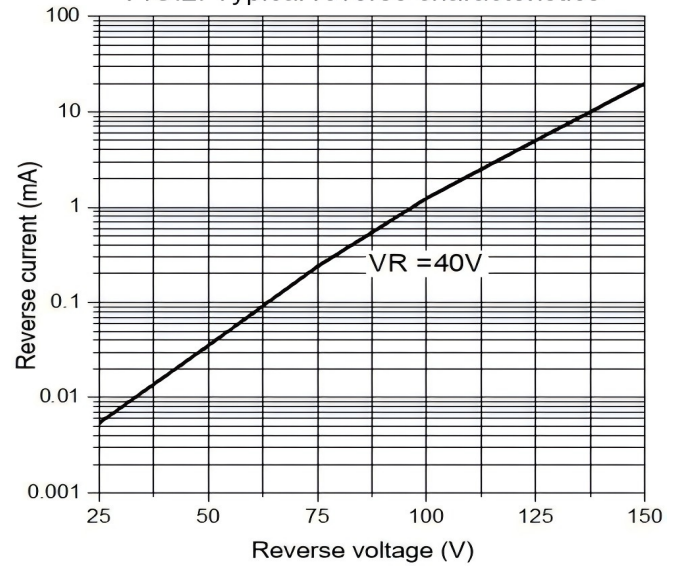




FIG.2: Typical reverse characteristics



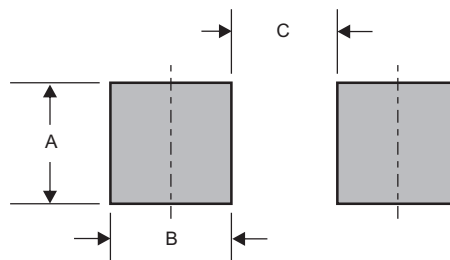
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
SS1040S-C-Q1	SS1040S

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMC	0.132 (3.30)	0.100 (2.50)	0.176(4.40)