Leiditech

S-SK52C~S-SK520C

Schottky diode for automotive applications

Features

- Low profile package
- Ideal for automated placement
- Low power loss, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Meets MSL level 1, per J-STD-020
- Component in accordance to
  RoHS 2011/65/EU and WEEE 2002/96/EC
- AEC−Q101 Qualified and PPAP Capable

DO-214AB (SMC)

Major Ratings and Characteristics

$I_{F(AV)}$	**5.0A**
V_{RRM}	**20 V to 200 V**
I_{FSM}	**150A**
V_F	**0.50V, 0.55V, 0.70V, 0.85V,0.95V**
$T_{Jmax.}$	**125 °C,150°C**

Mechanical Date

- Case:JEDEC DO-214AB（SMC）
  Molding compound meets
  UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
  MIL-STD-750， Method 2026
- **Polarity:** Laser band denotes cathode end

Maximum Ratings & Thermal Characteristics (T_A = 25 °C unless otherwise noted)

Characteristic	Symbol	S-SK52C	S-SK53C	S-SK54C	S-SK55C	S-SK56C	S-SK58C	S-SK510C	S-SK515C	S-SK520C	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at T_L (see Fig.1)	$I_{F(AV)}$	5									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150									A
Thermal resistance from junction to lead (1)	$R_{\theta JL}$	13									℃/W
Operating junction temperature range	T_J	-65 to +125					-65 to +150				℃
Storage temperature range	T_{STG}	-65 to +150									℃

Note 1: Mounted on P.C.B. with 0.31 x 0.31” (8 x 8 mm) copper pad areas.

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	S-SK52C	S-SK53~54C	S-SK55~56C	S-SK58~510C	S-SK515~520C	Unit
Instantaneous forward voltage	I_F=5.0A(2)		V_F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	V_R=V_{DC}	T_A=25℃	I_R	0.5					mA
		T_A=100℃		20.0		10.0			

Note 2: Pulse test:300μs pulse width,1% duty cycle

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig 1. Forward Current Derating Curve

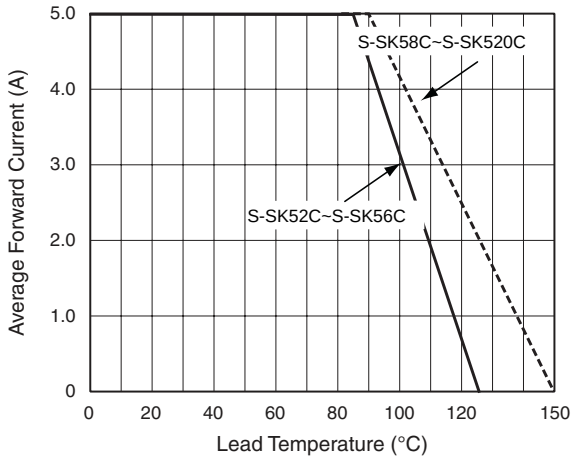


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

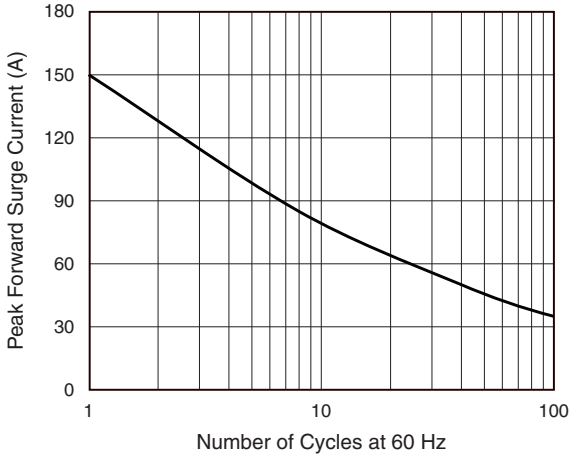


Fig3. Typical Instantaneous Forward Characteristics

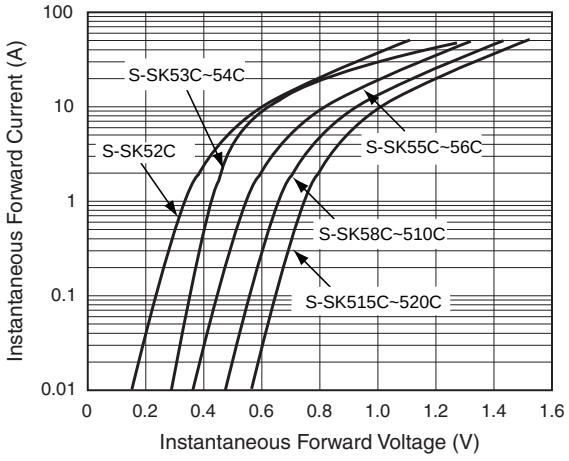
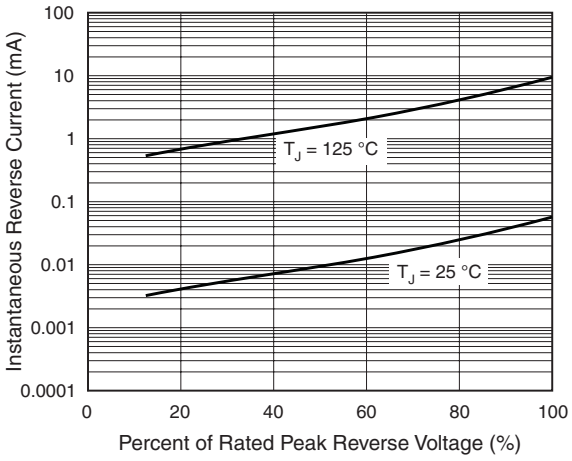
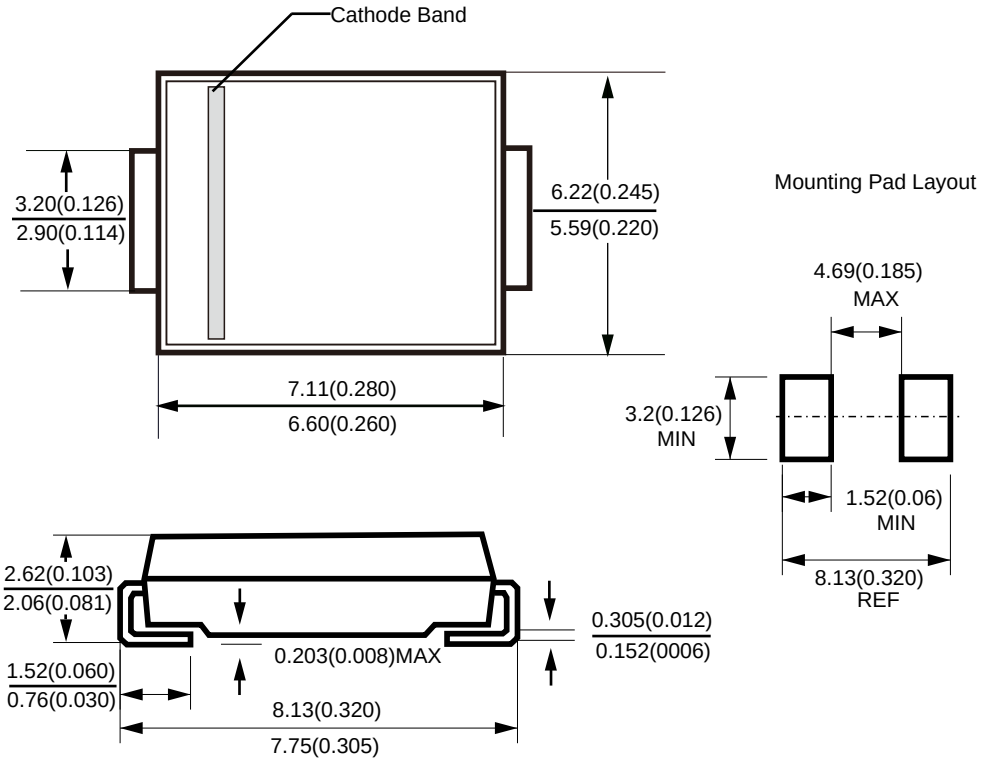


Fig 4. Typical Reverse Characteristics



Package Outline

SMC(DO-214AB)



Dimensions in millimeters and (inches)

Shanghai Leiditech Electronic Co.,Ltd
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059