

Major Ratings and Characteristics

$I_{F(AV)}$	8.0 A
V_{RRM}	20 V to 100 V
I_{FSM}	200 A
V_F	0.50V , 0.55 V , 0.70 V, 0.85V
T_j max.	150 °C



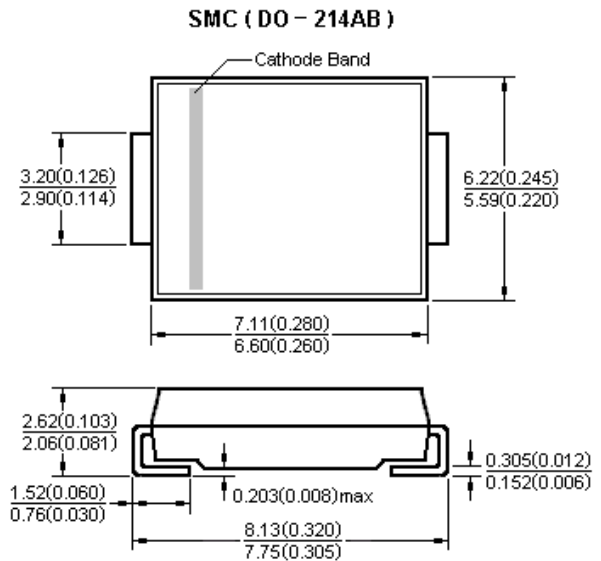
SMC (DO – 214AB)

Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** JEDEC DO-214AB molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



Dimensions in millimeters and (inches)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

($T_A = 25\text{ °C}$ unless otherwise noted)

	Symbol	SK82	SK83	SK84	SK85	SK86	SK88	SK810	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current	$I_{F(AV)}$	8.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	200							A
Maximum instantaneous forward voltage at 8.0A	V_F	0.50	0.55	0.70	0.85				V
Maximum DC reverse current $T_A = 25\text{ °C}$ at Rated DC blocking voltage $T_A = 100\text{ °C}$	I_R	1.0							mA
		20							
Thermal resistance from junction to ambient	$R_{\theta JL}$	20							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							°C

Characteristic Curves ($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

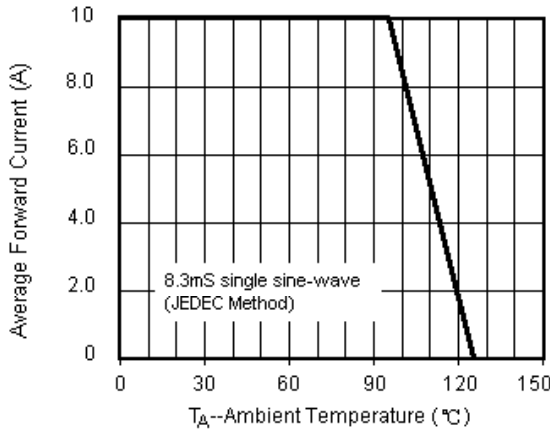


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

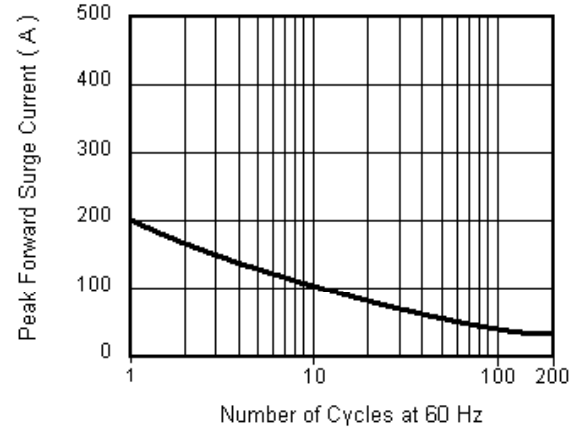


Fig.3 Typical Instantaneous Forward Characteristics

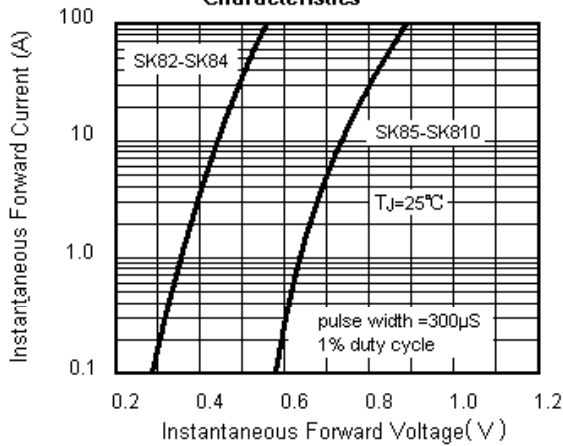


Fig.4 Typical Reverse Leakage Characteristics

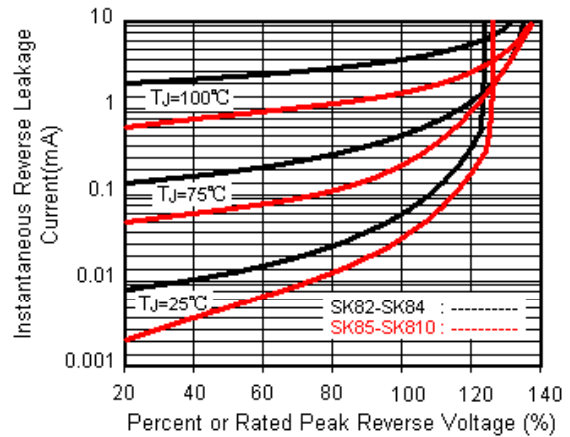


Fig.5 Typical Junction Capacitance

