



**Major Ratings and Characteristics**

$I_{F(AV)}$	5.0 A
$V_{RRM}$	20 V to 100 V
$I_{FSM}$	150 A
$V_F$	0.55 V , 0.70 V, 0.85V
$T_j \text{ max.}$	150 °C



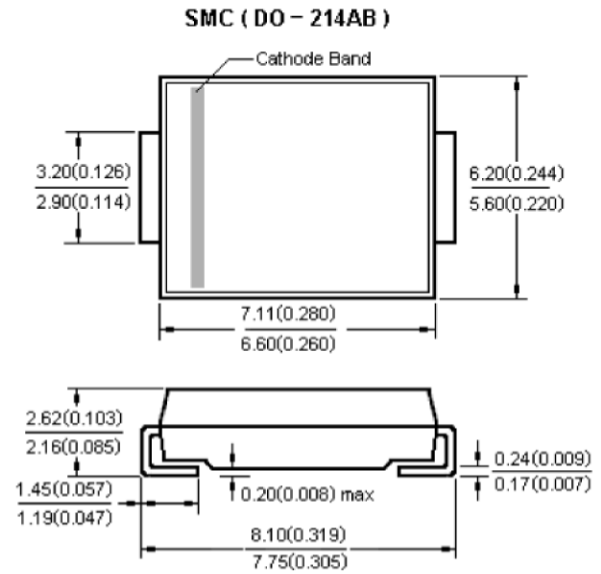
SMC ( DO - 214AB )

**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**

(TA = 25 °C unless otherwise noted)

	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS510	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	$I_{F(AV)}$	5							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	150							A
Maximum instantaneous forward voltage at 5.0A	$V_F$	0.55		0.70		0.85			V
Maximum DC reverse current at Rated DC blocking voltage	$I_R$	0.5							mA
		10					20		mA
Maximum DC reverse current at Rated DC blocking voltage	$I_R$	0.5							mA
Voltage rate of change (rated VR)	dv/dt	10000							V/μs
Thermal resistance from junction to ambient	$R_{θJA}$	88							°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

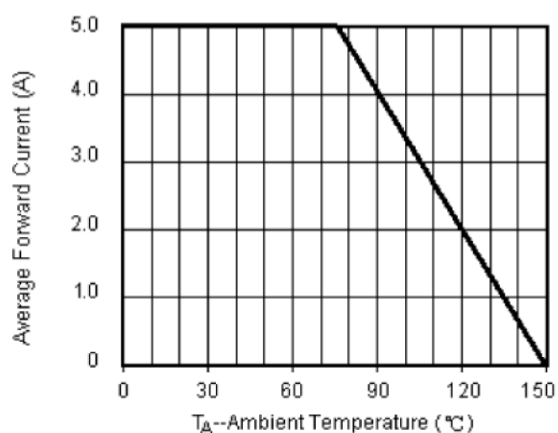


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

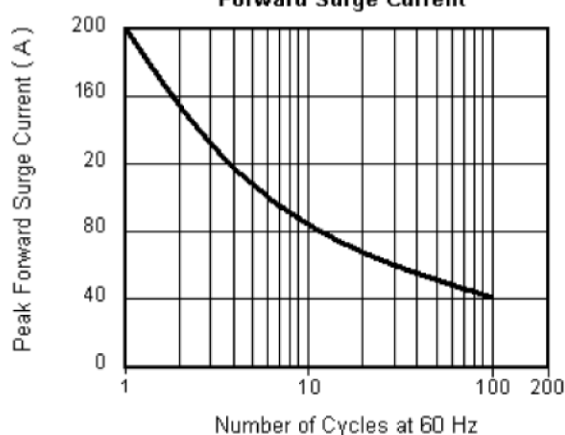


Fig.3 Typical Instantaneous Forward Characteristics

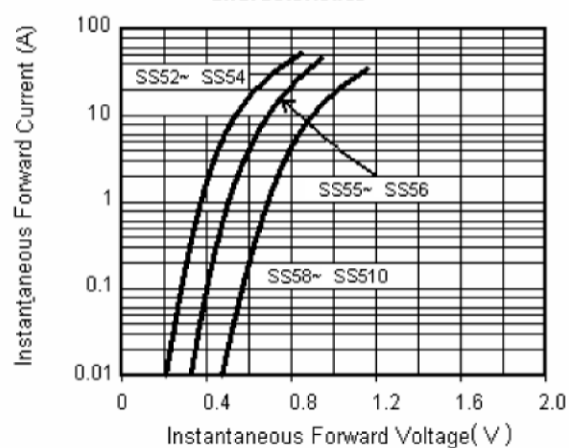


Fig.4 Typical Reverse Leakage Characteristics

