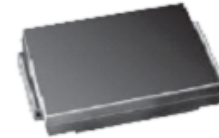


Major Ratings and Characteristics

$I_{F(AV)}$	3.0 A
V_{RRM}	50 V to 1000 V
I_{FSM}	100 A
t_{rr}	35 nS
V_F	0.95 V, 1.3 V, 1.7 V
$T_j \text{ max.}$	150 °C



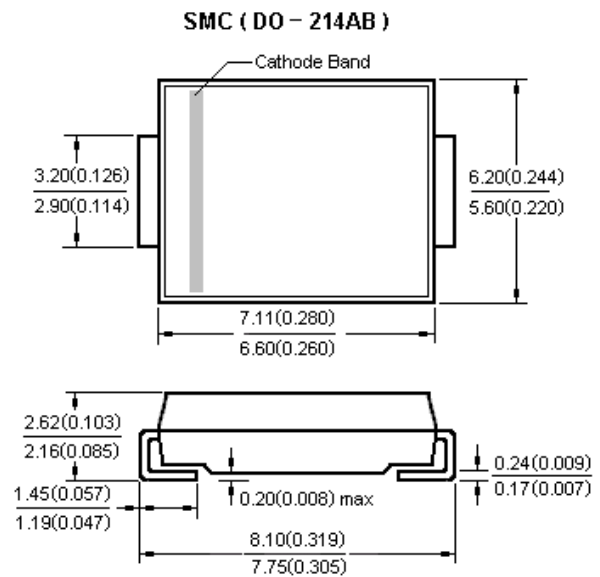
SMC (DO - 214AB)

Features

- Glass passivated chip junction
- Ideal for automated placement
- Ultrafast reverse recovery time for high efficiency
- Low profile package
- High forward 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	(ES3A)	(ES3B)	(ES3D)	(ES3G)	(ES3J)	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forward rectified current	$I_{F(AV)}$	3					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100					A
Maximum instantaneous forward voltage at 3.0A	V_F	0.95		1.30		1.70	V
Maximum DC reverse current at Rated DC blocking voltage	I_R	5.0					μ A
		50					μ A
Maximum reverse recovery time at $I_F = 0.5$ A, $I_R = 1.0$ A, $I_{rr} = 0.25$ A	t_{rr}	35					nS
Typical junction capacitance at 4.0 V, 1MHz	C_J	45					pF
Typical thermal resistance	$R_{\theta JA}$	50					°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150					°C

(ES3A~ES3J)SMC

Super Fast recovery rectifiers

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

Fig.1 Forward Current Derating Curve

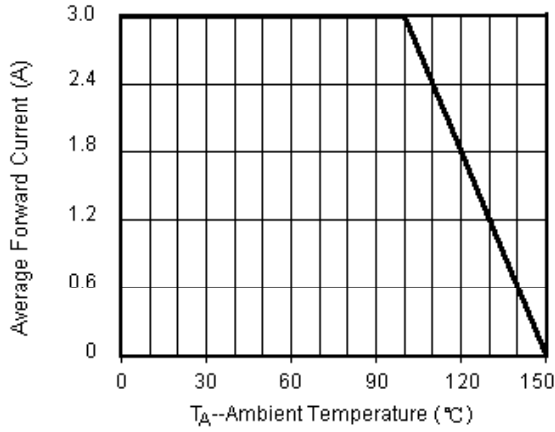


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

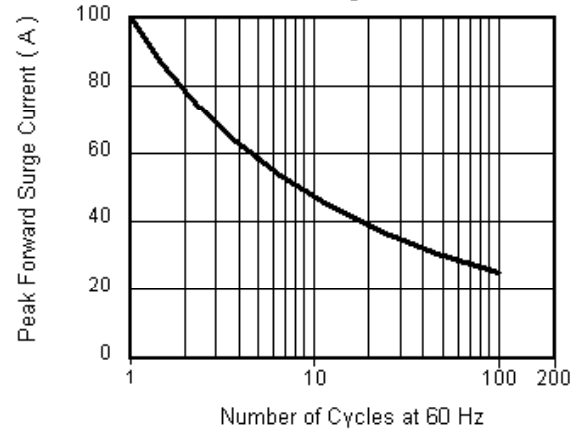


Fig.3 Typical Instantaneous Forward Characteristics

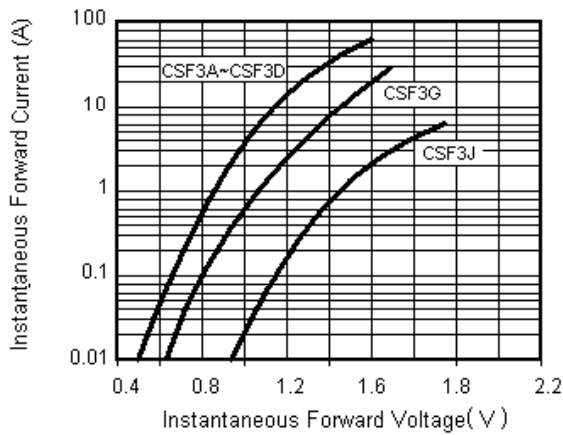


Fig.4 Typical Reverse Leakage Characteristics

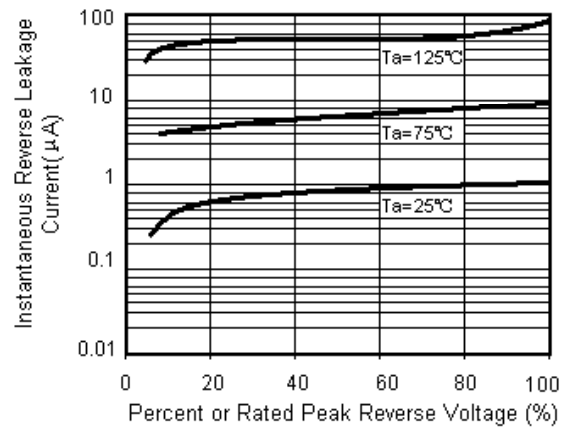


Fig.5 Typical Junction Capacitance

