

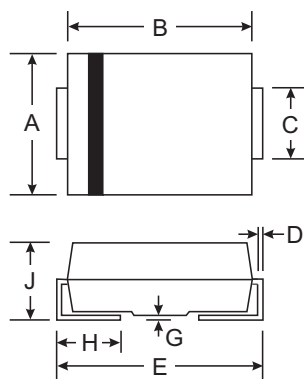
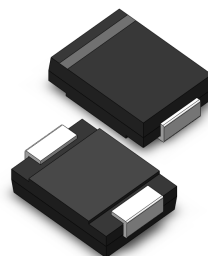
VOLTAGE RANGE: 300V
CURRENT: 3.0 A

Features

- For surface mount applications
- Low profile package
- Easy pick and place
- Glass passivated chip junction
- Superfast recovery times for high efficiency
- Low power loss, high efficiency
- High temperature soldering:
250°C/10 seconds at terminals

Mechanical Data

- Case: SMC(DO-214AB), Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Approx. Weight: 0.21 grams
- Mounting Position: Any



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	ES3F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	300	Volts
Working peak reverse voltage	V_{RWM}	225	Volts
Maximum RMS voltage	V_{RMS}	210	Volts
Maximum DC blocking voltage	V_{DC}	300	Volts
Maximum average forward rectified current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	3.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_L = 100^\circ\text{C}$	I_{FSM}	100	Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.10	Volts
Maximum DC reverse current at working peak reverse voltage	I_R	10.0 350	μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35	ns
Maximum reverse recovery time (NOTE 2)	t_{rr}	50	ns
Maximum reverse recovery current (NOTE 2)	I_{RM}	3.0	Amps
Maximum stored charge (NOTE 2)	Q_{rr}	50	ns
Typical junction capacitance (NOTE 3)	C_J	30	pF
Typical thermal resistance (NOTE 4)	$R_{\theta JA}$ $R_{\theta JL}$	50 15	$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

NOTES:

- (1) Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$
- (2) Measured at $I_F = 1.0\text{A}$, $di/dt = 100\text{A}/\mu\text{s}$, $V_R = 30\text{V}$, $I_{rr} = 0.1I_{RM}$
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (4) Units mounted on P.C.B. with 0.31×0.31 " ($8.0 \times 8.0\text{mm}$) copper pad areas

RATING AND CHARACTERISTIC CURVES ES3F

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

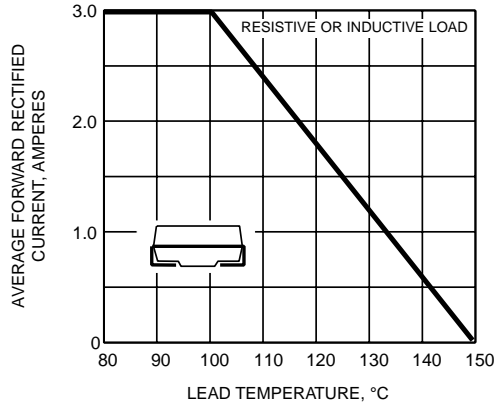


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

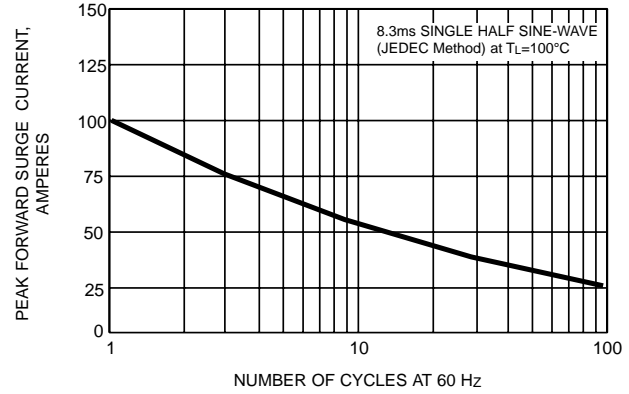


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

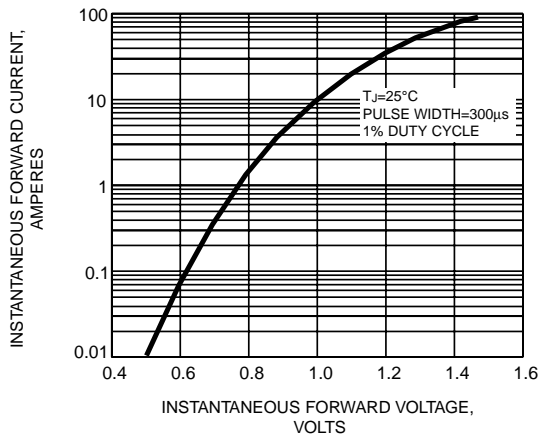


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

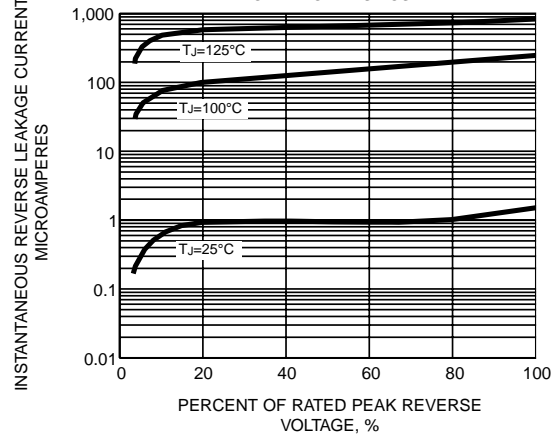


FIG. 5 - REVERSE SWITCHING CHARACTERISTICS

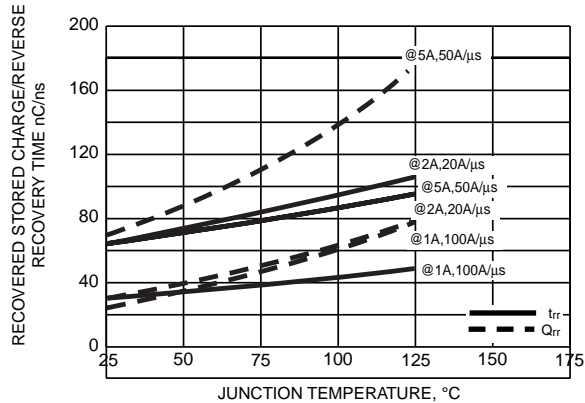


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

