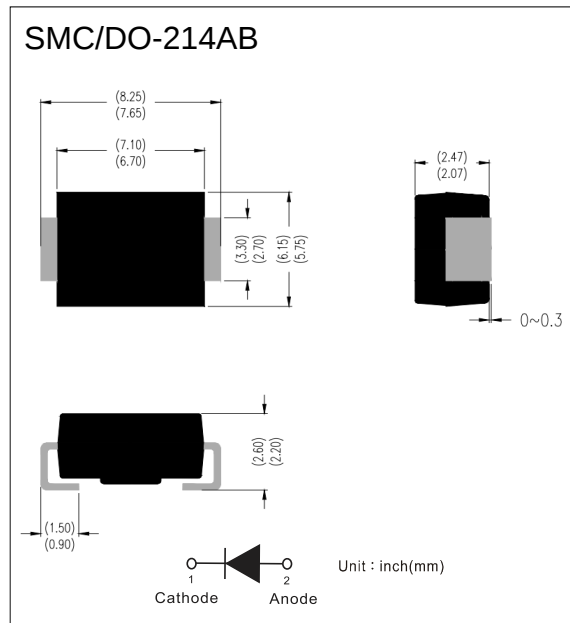


■ Features

- Glass passivated junction chip
- Ideal for automated placement
- Super fast recovery time for high efficiency
- Comply with RoHS standard, halogen-free

■ Mechanical Data

- package: SMC/DO-214AB
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



■ Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J	UNIT
Repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Reverse voltage, total rms value	$V_{R(RMS)}$	30	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Forward current	$I_{F(AV)}$	3								A
Surge peak forward current, 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	100								A
Junction temperature	T_J	- 55 to +150								$^{\circ}\text{C}$
Storage temperature	T_{STG}	- 55 to +150								$^{\circ}\text{C}$

■ Thermal Performance($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance per diode	$R_{\theta JL}$	12	$^{\circ}\text{C/W}$
Junction-to-ambient thermal resistance per diode	$R_{\theta JA}$	47	$^{\circ}\text{C/W}$

■ Electrical Specifications($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER		CONDITIONS	SYMBOL	TYP.	MAX.	UNIT
Forward voltage per diode ⁽¹⁾	ES3A ES3B ES3C ES3D	$I_F = 3\text{A}$, $T_J = 25^{\circ}\text{C}$	V_F	-	0.95	V
	ES3F ES3G			-	1.30	V
	ES3H ES3J			-	1.70	V
Reverse current @ rated V_R per diode ⁽²⁾		$T_J = 25^{\circ}\text{C}$	I_R	-	10	μA
		$T_J = 100^{\circ}\text{C}$		-	500	μA
Junction capacitance	ES3A ES3B ES3C ES3D	1 MHz, $V_R=4.0\text{V}$	C_J	45	-	pF
	ES3F ES3G ES3H ES3J			30	-	pF
Reverse recovery time		$I_F=0.5\text{A}$, $I_R=1.0\text{A}$ $I_{RR}=0.25\text{A}$	t_{rr}	-	35	ns

Notes:

1. Pulse test with $PW=0.3\text{ ms}$
2. Pulse test with $PW=30\text{ ms}$



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

Fig.1 Forward Current Derating Curve

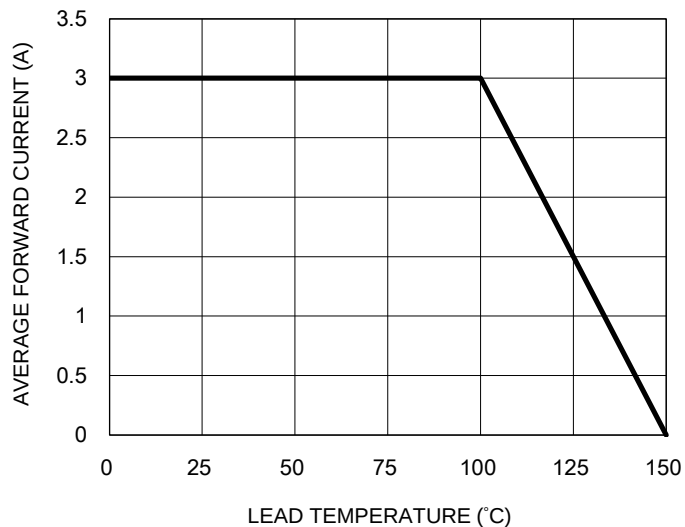


Fig.2 Typical Junction Capacitance

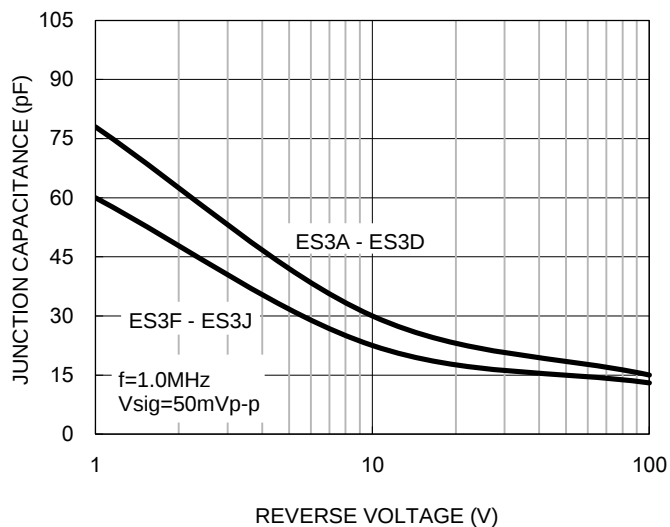


Fig.3 Typical Reverse Characteristics

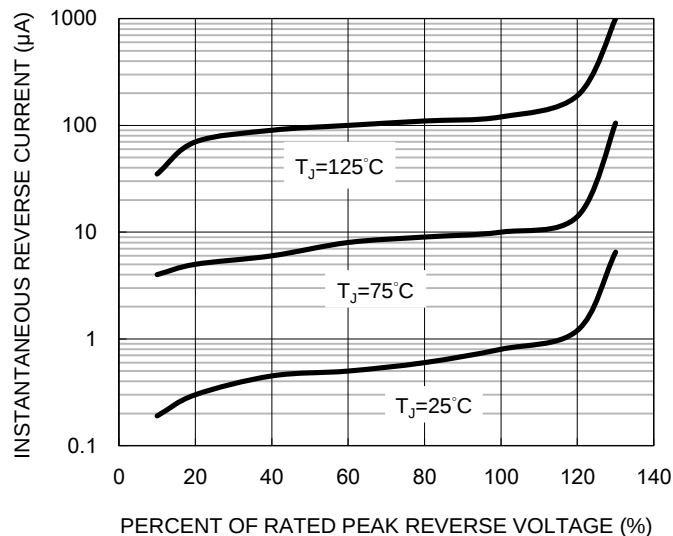


Fig.4 Typical Forward Characteristics

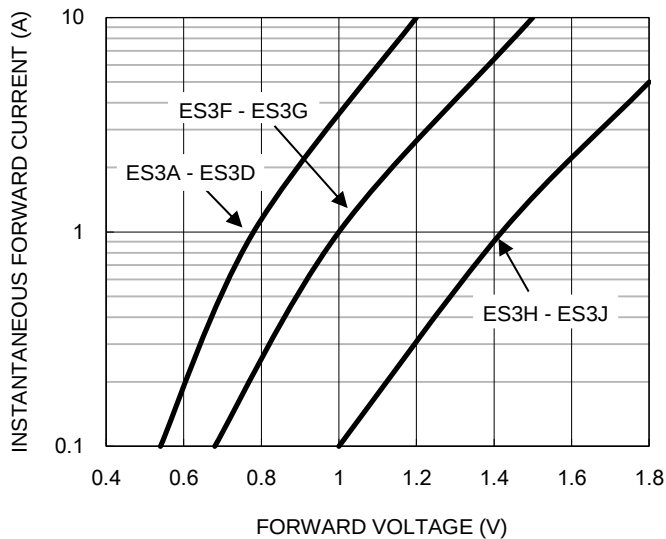


Fig.5 Maximum Non-repetitive Forward Surge Current

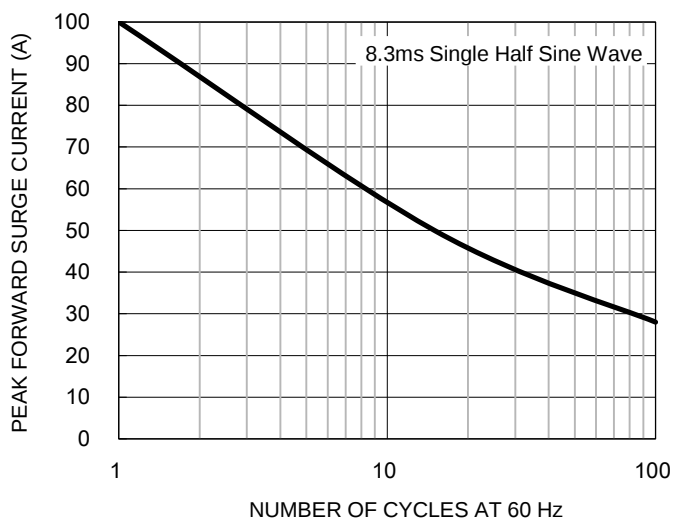


Fig.6 Typical Transient Thermal Characteristics

