



ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)					
PARAMETER	TEST CONDITIONS		SYMBOL	VALUE	UNIT
Maximum instantaneous forward voltage	$I_F = 3\text{ A}$		$V_F^{(1)}$	0.90	V
Maximum DC reverse current at rated DC blocking voltage		$T_A = 25\text{ }^\circ\text{C}$	I_R	5.0	μA
		$T_A = 125\text{ }^\circ\text{C}$		150	
Maximum reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, I_{rr} = 0.25\text{ A}$		t_{rr}	25	ns
Typical reverse recovery time	$I_F = 3\text{ A}, V_R = 30\text{ V},$ $di/dt = 50\text{ A}/\mu\text{s}, I_{rr} = 10\% I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$	t_{rr}	40	
		$T_J = 100\text{ }^\circ\text{C}$		55	
Typical stored charge	$I_F = 3\text{ A}, V_R = 30\text{ V},$ $di/dt = 50\text{ A}/\mu\text{s}, I_{rr} = 10\% I_{RM}$	$T_J = 25\text{ }^\circ\text{C}$	Q_{rr}	25	nC
		$T_J = 100\text{ }^\circ\text{C}$		60	
Typical junction capacitance	4.0 V, 1 MHz		C_J	70	pF

Note(1) Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	ESH3B	ESH3C	ESH3D	UNIT
Typical thermal resistance	$R_{\theta JA}^{(1)}$	50			$^\circ\text{C}/\text{W}$
	$R_{\theta JL}^{(1)}$	15			

Note

(1) Units mounted on PCB with 12.0 mm x 12.0 mm land areas

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
ESH3D-E3/57T	0.211	57T	850	7" diameter plastic tape and reel
ESH3D-E3/9AT	0.211	9AT	3500	13" diameter plastic tape and reel
ESH3DHE3_A/H ⁽¹⁾	0.211	H	850	7" diameter plastic tape and reel
ESH3DHE3_A/I ⁽¹⁾	0.211	I	3500	13" diameter plastic tape and reel

Note

(1) AEC-Q101 qualified



RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

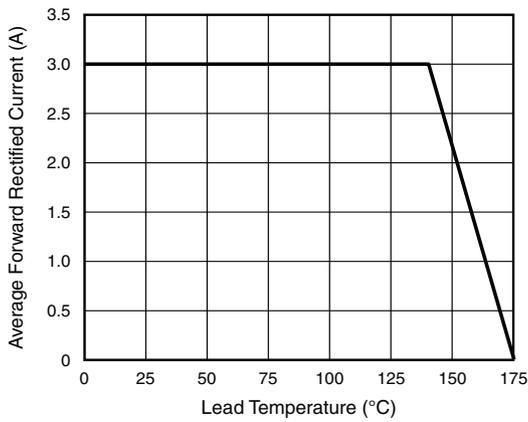


Fig. 1 - Maximum Forward Current Derating Curve

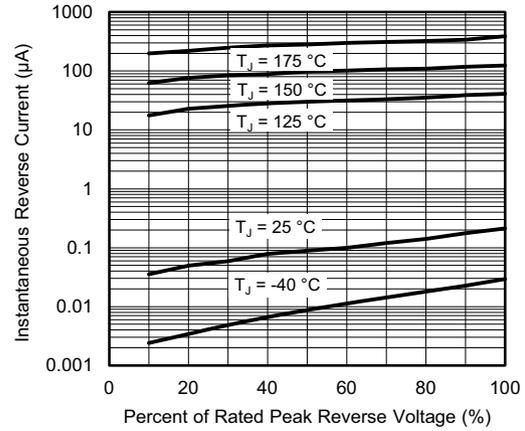


Fig. 4 - Typical Reverse Leakage Characteristics

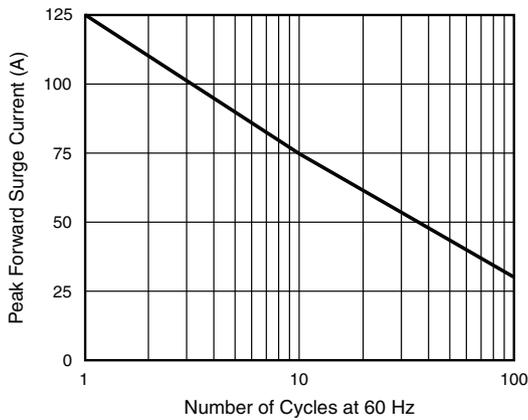


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

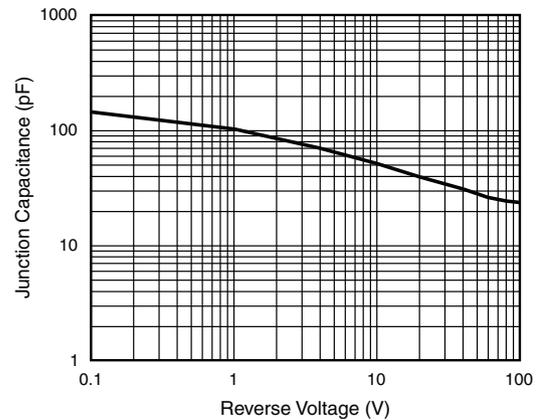


Fig. 5 - Typical Junction Capacitance

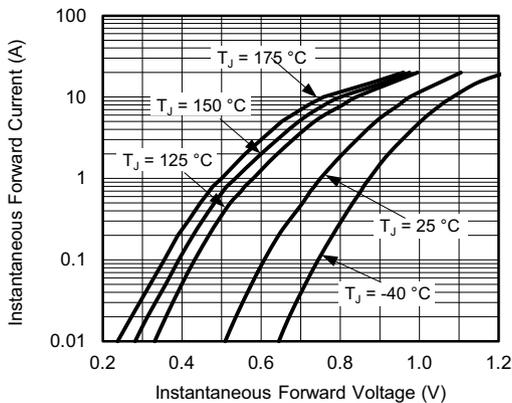


Fig. 3 - Typical Instantaneous Forward Characteristics

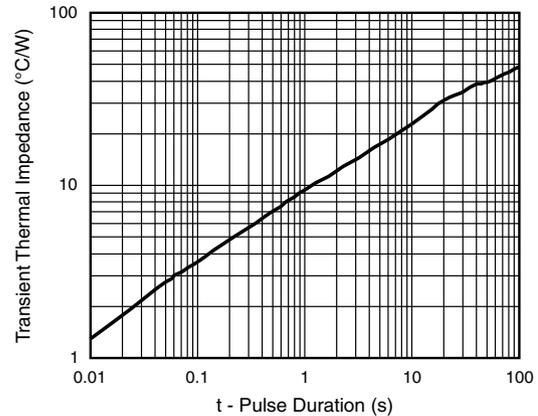
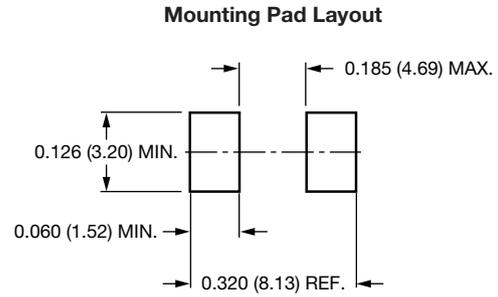
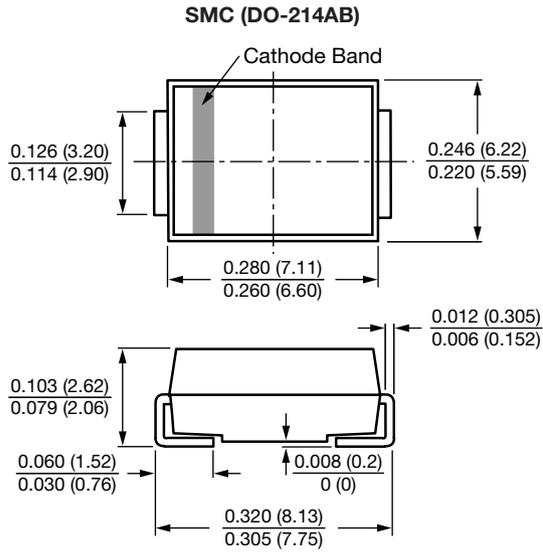


Fig. 6 - Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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