

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

PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	MAX.	UNIT
Instantaneous forward voltage	$I_F = 1.5\text{ A}$	$V_F^{(1)}$	0.85	-	V
	$I_F = 3.0\text{ A}$		0.95	1.05	
	$I_F = 1.5\text{ A}$		0.65	-	
	$I_F = 3.0\text{ A}$		0.75	0.90	
Reverse current	Rated V_R	$I_R^{(2)}$	-	5	μA
			15	100	
Maximum reverse recovery time	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$	t_{rr}	14	25	ns
Typical reverse recovery time	$I_F = 1.0\text{ A}$, $dI/dt = 50\text{ A}/\mu\text{s}$, $V_R = 30\text{ V}$, $I_{rr} = 0.1\text{ I}_{RM}$		23	40	
Typical softness factor (t_b/t_a)	$I_F = 3.0\text{ A}$, $dI/dt = 200\text{ A}/\mu\text{s}$, $V_R = 200\text{ V}$	S	0.2	-	
Typical reverse recovery current		I_{RM}	5.0	7.0	A
Typical stored charge		Q_{rr}	60	-	nC
Typical junction capacitance		C_J	42	-	pF

Notes

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

(2) Pulse test: Pulse width $\leq 40\text{ ms}$
THERMAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	UH3B	UH3C	UH3D	UNIT
Typical thermal resistance	$R_{\theta JA}^{(1)}$	95			°C/W
	$R_{\theta JM}^{(1)}$	12			

Note

(1) Free air, mounted on recommended copper pad area. Thermal resistance $R_{\theta JA}$ - junction to ambient, $R_{\theta JM}$ - junction to mount

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
UH3D-M3/57T	0.236	57T	850	7" diameter plastic tape and reel
UH3D-M3/9AT	0.236	9AT	3500	13" diameter plastic tape and reel

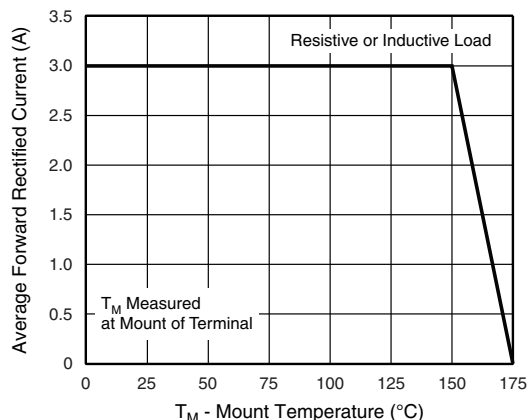
RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)


Fig. 1 - Maximum Forward Current Derating Curve

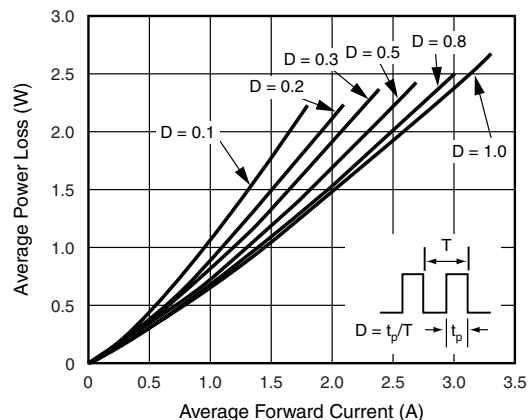


Fig. 2 - Forward Power Loss Characteristics

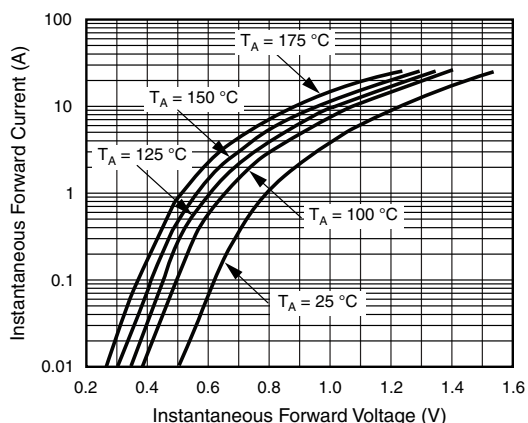


Fig. 3 - Typical Instantaneous Forward Characteristics

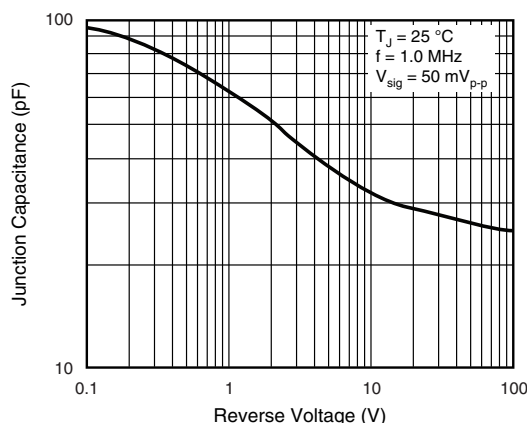


Fig. 5 - Typical Junction Capacitance

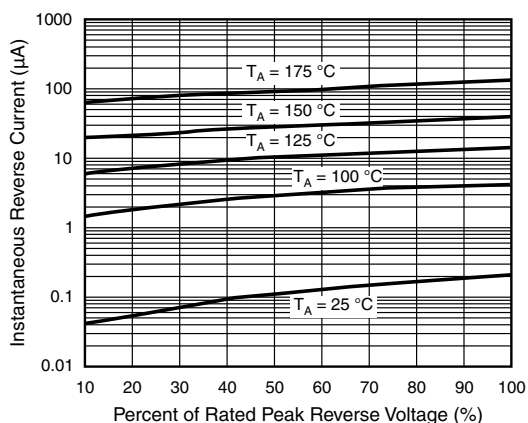


Fig. 4 - Typical Reverse Characteristics

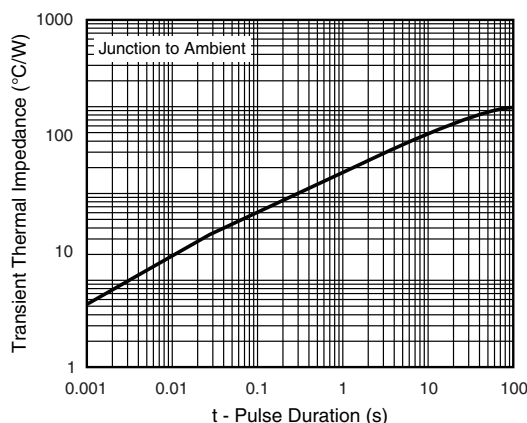
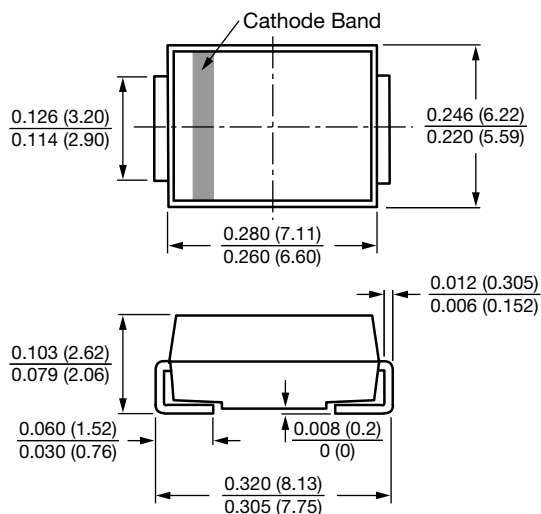


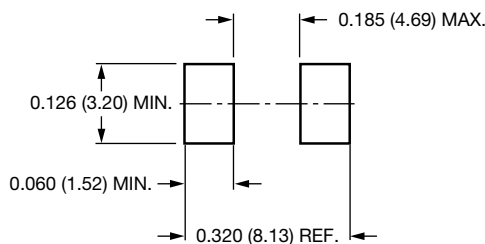
Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-214AB (SMC)



Mounting Pad Layout





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