ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)						
PARAMETER	**TEST CONDITIONS**		**SYMBOL**	**TYP.**	**MAX.**	**UNIT**
Instantaneous forward voltage	I_F = 5.0 A	T_A = 25 °C	V_F (1)	0.40	-	V
	I_F = 7.5 A			0.45	-	
	I_F = 15 A			0.49	0.58	
	I_F = 5.0 A	T_A = 125 °C		0.31	-	
	I_F = 7.5 A			0.34	-	
	I_F = 15 A			0.42	0.51	
Reverse current	V_R = 45 V	T_A = 25 °C	I_R (2)	-	1500	µA
		T_A = 125 °C		15	50	mA

Notes

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

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)			
PARAMETER	**SYMBOL**	**V15P45S**	**UNIT**
Typical thermal resistance	$R_{\theta JA}$ (1)	75	°C/W
	$R_{\theta JM}$ (2)	4	

Notes

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

(2) Mounted on 30 mm x 30 mm aluminum PCB; thermal resistance $R_{\theta JM}$ - junction to mount

ORDERING INFORMATION (Example)				
PREFERRED P/N	**UNIT WEIGHT (g)**	**PREFERRED PACKAGE CODE**	**BASE QUANTITY**	**DELIVERY MODE**
V15P45S-M3/86A	0.10	86A	1500	7" diameter plastic tape and reel
V15P45S-M3/87A	0.10	87A	6500	13" diameter plastic tape and reel

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

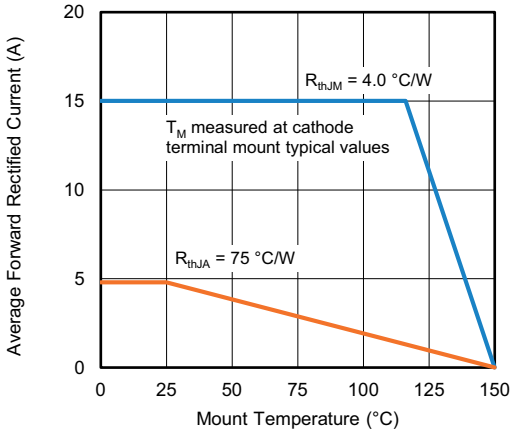


Fig. 1 - Forward Current Derating Curve

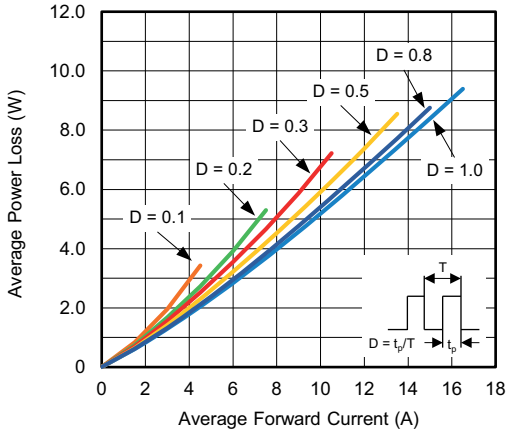


Fig. 2 - Forward Power Loss Characteristics Per Diode

Notes

(1) Mounted on 30 mm x 30 mm aluminum PCB; T_M measured at the terminal of cathode band ($R_{\theta JM}$ = 4 °C/W)

(2) Free air, mounted on recommended copper pad area ($R_{\theta JA}$ = 75 °C/W)

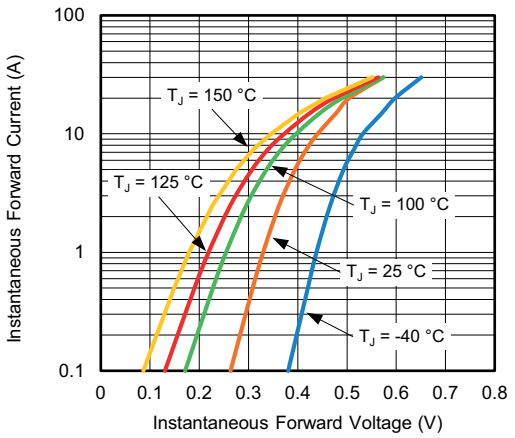


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

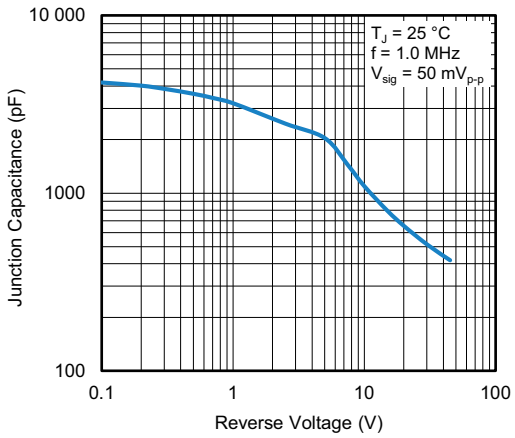


Fig. 5 - Typical Junction Capacitance

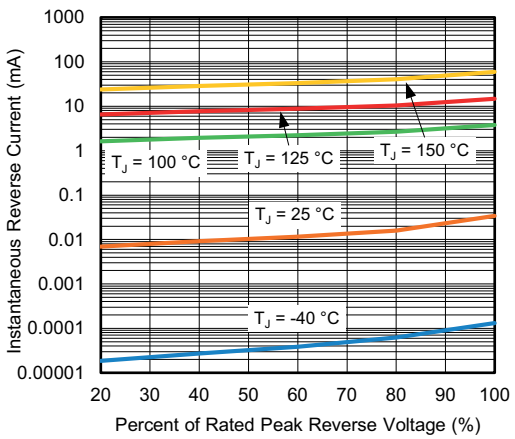


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

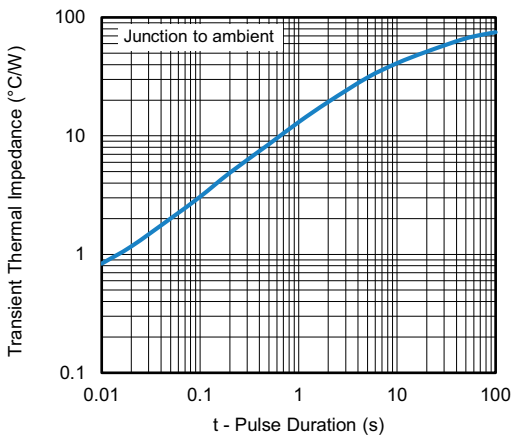
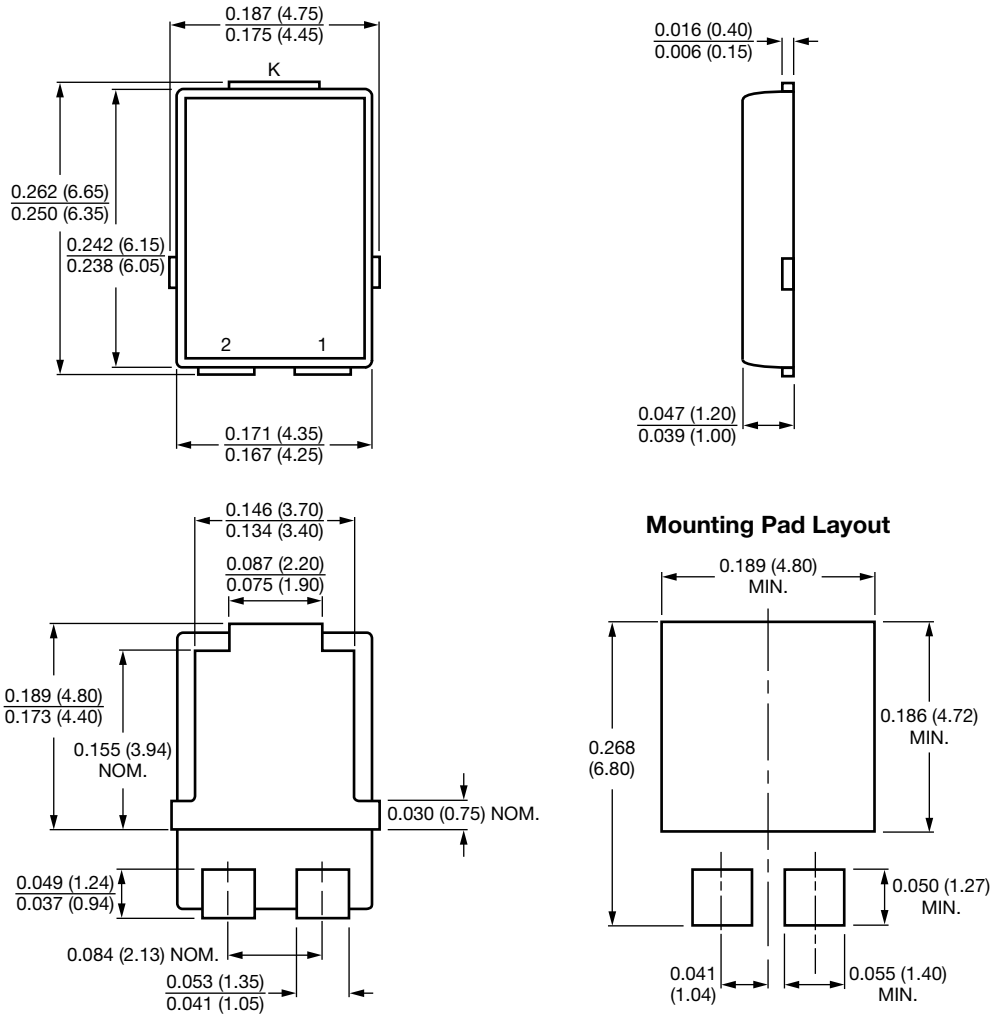


Fig. 6 - Typical Transient Thermal Impedance Per Diode

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

SMPC (TO-277A)



Mounting Pad Layout

Conform to JEDEC® TO-277A

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