FORWARD CONDUCTION

PARAMETER	SYMBOL	TEST CONDITIONS			VALUES 26MT..	VALUES 36MT..	UNITS
Maximum DC output current at T_C	I_O	120° rect. conduction angle			25	35	A
					70	60	°C
Maximum peak, one-cycle non-repetitive forward current	I_{FSM}	t = 10 ms	No voltage reapplied	Initial $T_J = T_J$ maximum	360	475	A
		t = 8.3 ms			375	500	
		t = 10 ms	100 % V_{RRM} reapplied		300	400	
		t = 8.3 ms			314	420	
Maximum I^2t for fusing	I^2t	t = 10 ms	No voltage reapplied		635	1130	A^2s
		t = 8.3 ms			580	1030	
		t = 10 ms	100 % V_{RRM} reapplied		450	800	
		t = 8.3 ms			410	730	
Maximum $I^2\sqrt{t}$ for fusing	$I^2\sqrt{t}$	I^2t for time $t_x = I^2\sqrt{t} \times \sqrt{t_x}$; $0.1 \le t_x \le 10$ ms, V_{RRM} = 0 V			6360	11 300	$A^2\sqrt{s}$
Low level of threshold voltage	$V_{F(TO)1}$	(16.7 % x π x $I_{F(AV)}$ < I < π x $I_{F(AV)}$), T_J maximum			0.88	0.86	V
High level of threshold voltage	$V_{F(TO)2}$	(I > π x $I_{F(AV)}$), T_J maximum			1.13	1.03	
Low level forward slope resistance	r_{t1}	(16.7 % x π x $I_{F(AV)}$ < I < π x $I_{F(AV)}$), T_J maximum			7.9	6.3	mΩ
High level forward slope resistance	r_{t2}	(I > π x $I_{F(AV)}$), T_J maximum			5.2	5.0	
Maximum forward voltage drop	V_{FM}	T_J = 25 °C, I_{FM} = 40 A_{pk} - per single junction			1.26	1.19	V
Maximum DC reverse current	I_{RRM}	T_J = 25 °C, per junction at rated V_{RRM}			100		µA
RMS isolation voltage	V_{INS}	T_J = 25 °C, all terminal shorted; f = 50 Hz, t = 1 s			2700		V

THERMAL - MECHANICAL SPECIFICATIONS

PARAMETER	SYMBOL	TEST CONDITIONS	VALUES 26MT	VALUES 36MT	UNITS
Maximum junction and storage temperature range	T_J, T_{Stg}		-55 to +150		°C
Maximum thermal resistance, junction to case	R_{thJC}	DC operation per bridge (based on total power loss of bridge)	1.42	1.35	K/W
Maximum thermal resistance, case to heatsink	R_{thCS}	Mounting surface, smooth, flat and greased	0.2	0.2	
Approximate weight			20		g
Mounting torque ± 10 %		Bridge to heatsink with screw M4	2.0		Nm

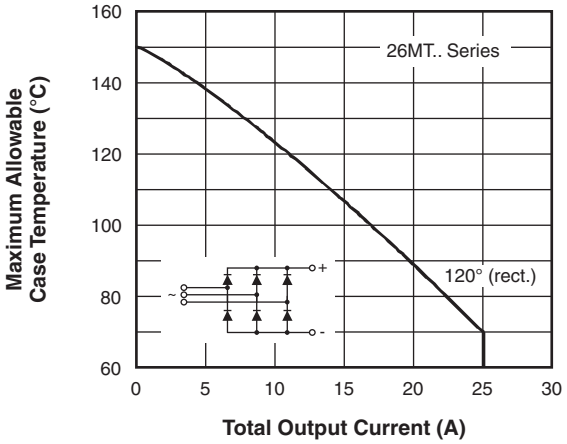

Fig. 1 - Current Ratings Characteristics

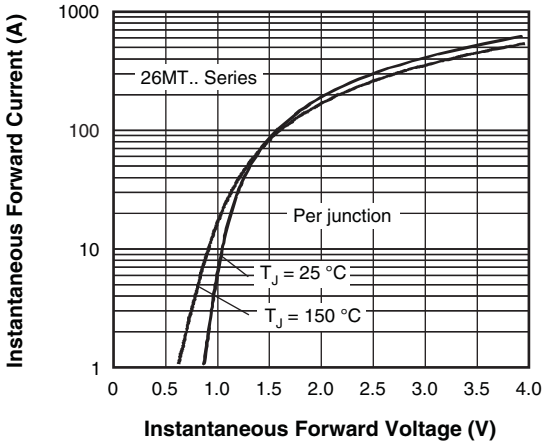

Fig. 2 - Forward Voltage Drop Characteristics

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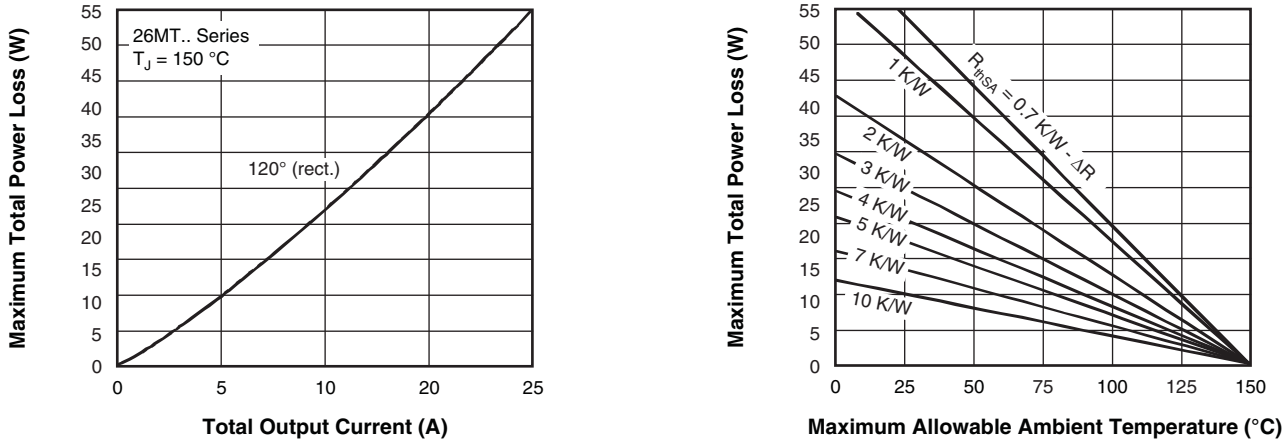

Fig. 3 - Total Power Loss Characteristics

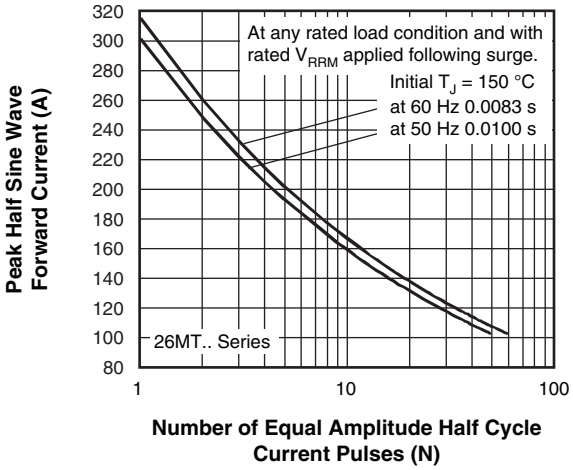

Fig. 4 - Maximum Non-Repetitive Surge Current

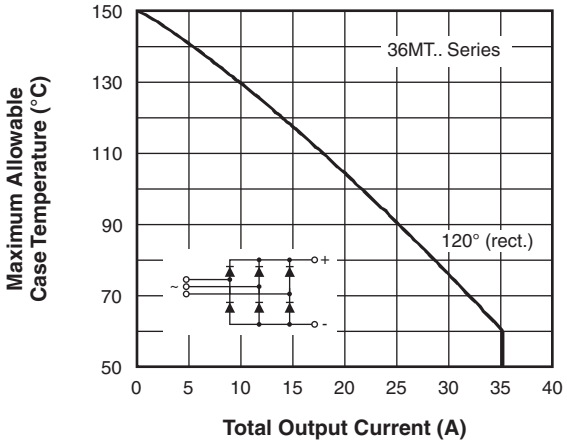

Fig. 6 - Current Ratings Characteristics

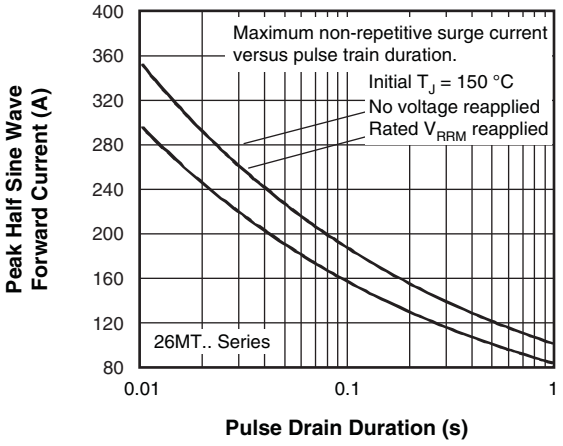

Fig. 5 - Maximum Non-Repetitive Surge Current

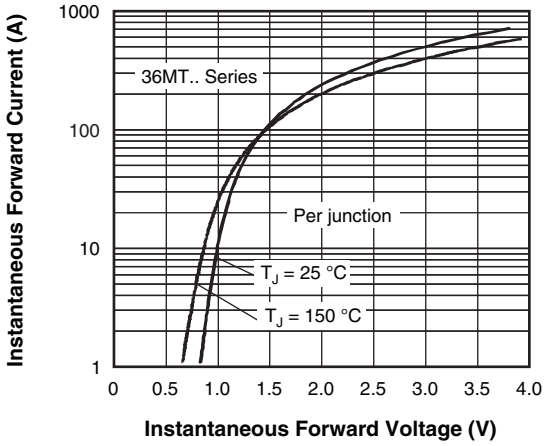

Fig. 7 - Forward Voltage Drop Characteristics

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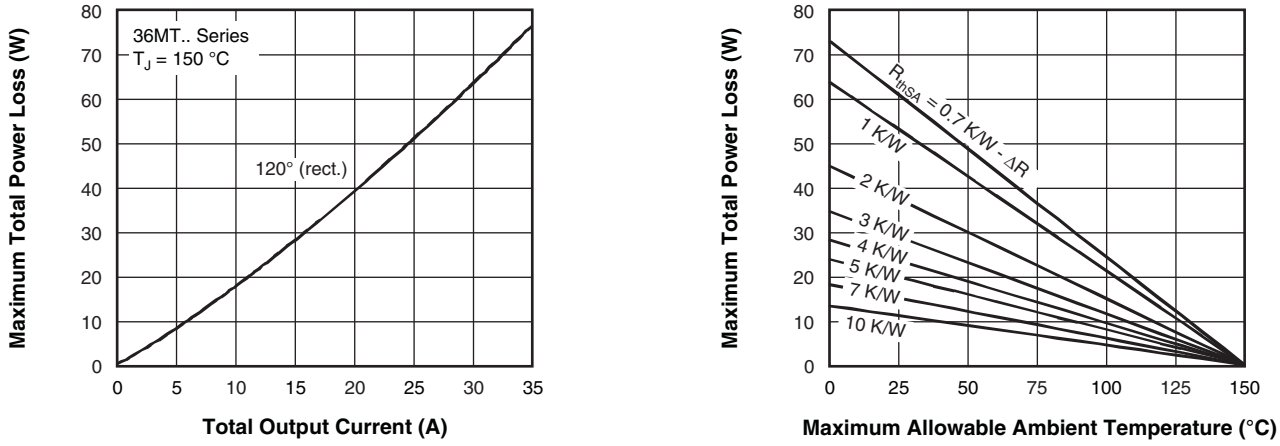

Fig. 8 - Total Power Loss Characteristics

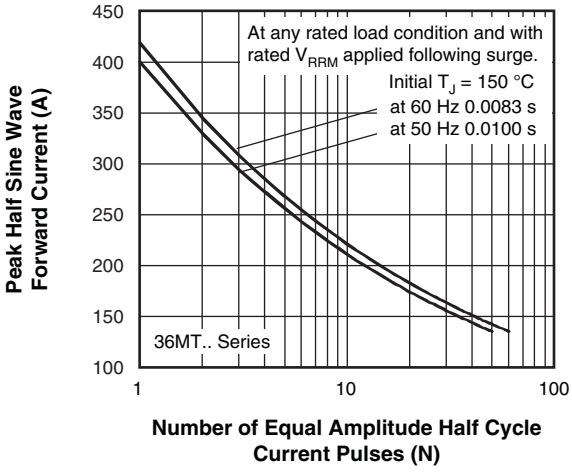

Fig. 9 - Maximum Non-Repetitive Surge Current

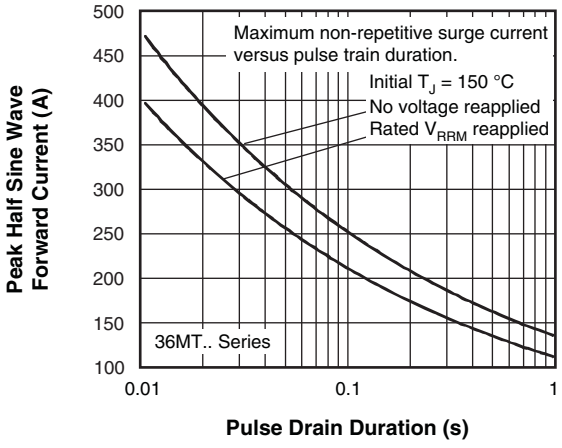

Fig. 10 - Maximum Non-Repetitive Surge Current

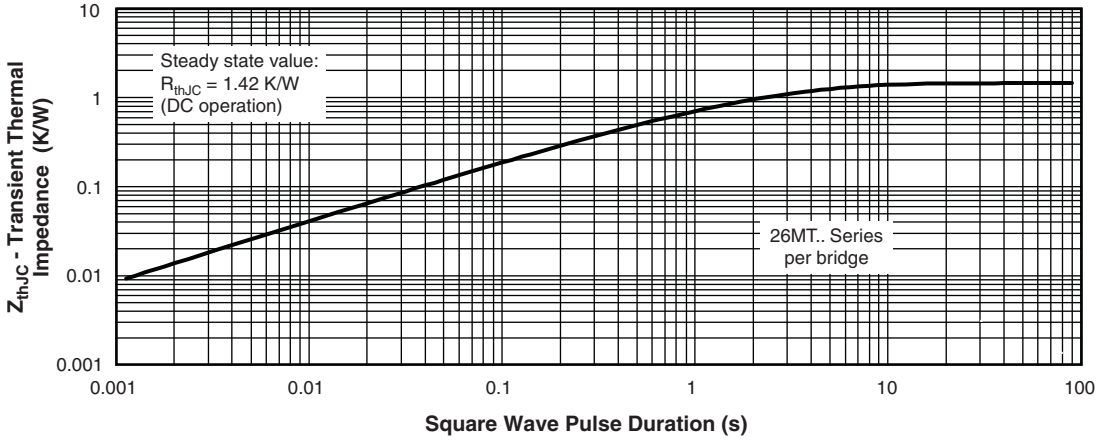

Fig. 11 - Thermal Impedance Z_{thJC} Characteristics

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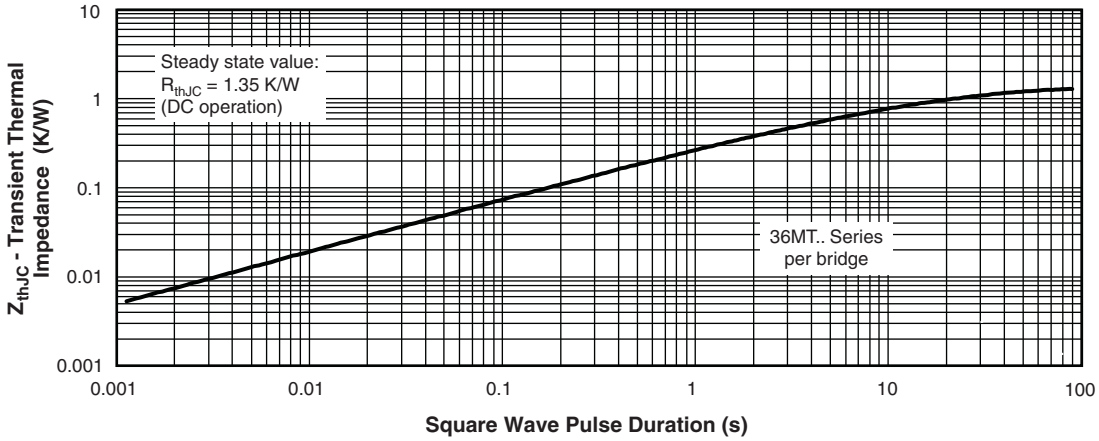


Fig. 12 - Thermal Impedance Z_{thJC} Characteristics

ORDERING INFORMATION TABLE

Device code

VS-	36	MT	160
1	2	3	4

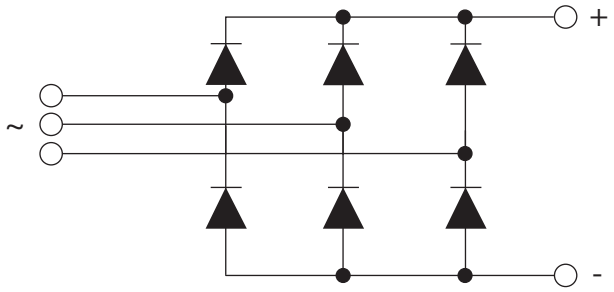
1 - Vishay Semiconductors product

2 - Current rating code — 26 = 25 A (average), 36 = 35 A (average)

3 - Basic part number

4 - Voltage code x 10 = V_{RRM}

CIRCUIT CONFIGURATION



LINKS TO RELATED DOCUMENTS	
Dimensions	www.vishay.com/doc?95251

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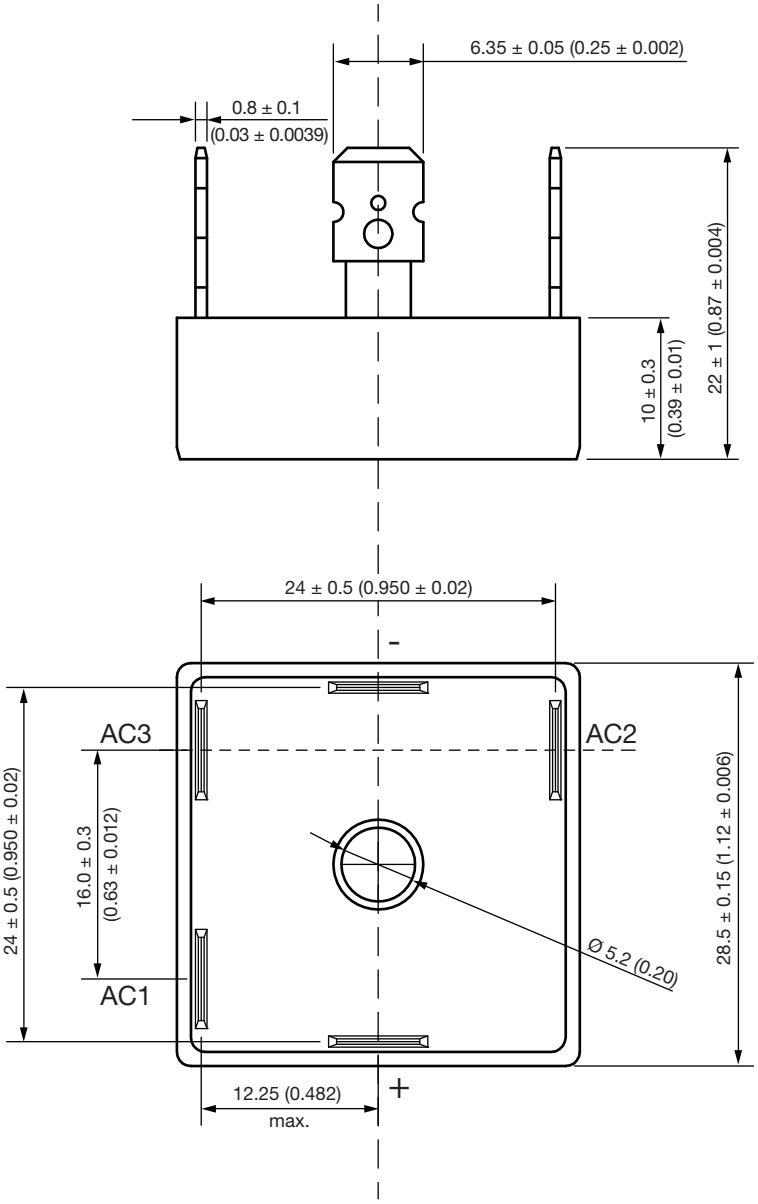
D-63

DIMENSIONS in millimeters (inches)



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