

ELECTRICAL SPECIFICATIONS					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum forward voltage drop	V _{FM} ⁽¹⁾	3 A	T _J = 25 °C	0.58	V
		6 A		0.76	
		3 A	T _J = 125 °C	0.52	
		6 A		0.66	
Maximum reverse leakage current	I _{RM} ⁽¹⁾	T _J = 25 °C	V _R = Rated V _R	0.5	mA
		T _J = 125 °C		20	
Maximum junction capacitance	C _T	V _R = 5 V _{DC} (test signal range 100 kHz to1 MHz), 25 °C		180	pF
Typical series inductance	L _S	Measured lead to lead 5 mm from package body		3.0	nH
Maximum voltage rate of change	dV/dt	Rated V _R		10 000	V/μs

Note(1) Pulse width < 300 μ s, duty cycle < 2 %

THERMAL - MECHANICAL SPECIFICATIONS				
PARAMETER	SYMBOL	TEST CONDITIONS	VALUES	UNITS
Maximum junction temperature range	T _J ⁽¹⁾		- 55 to 150	°C
Maximum storage temperature range	T _{Stg}			
Maximum thermal resistance, junction to lead	R _{thJL} ⁽²⁾	DC operation	12	°C/W
Maximum thermal resistance, junction to ambient	R _{thJA}		46	
Approximate weight			0.24	g
			0.008	oz.
Marking device		Case style SMC (similar to DO-214AB)	V3H	

Notes(1) $\frac{dP_{tot}}{dT_J} < \frac{1}{R_{thJA}}$ thermal runaway condition for a diode on its own heatsink

(2) Mounted 1" square PCB

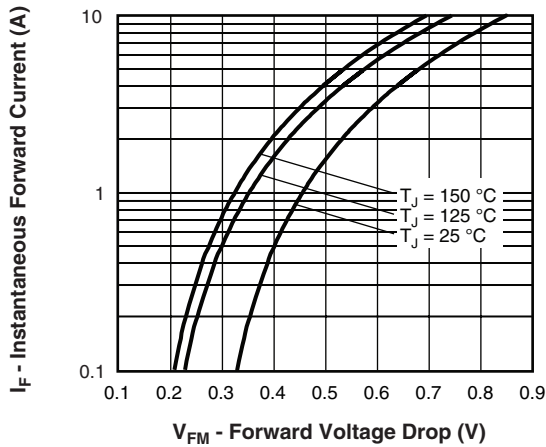


Fig. 1 - Maximum Forward Voltage Drop Characteristics (Per Leg)

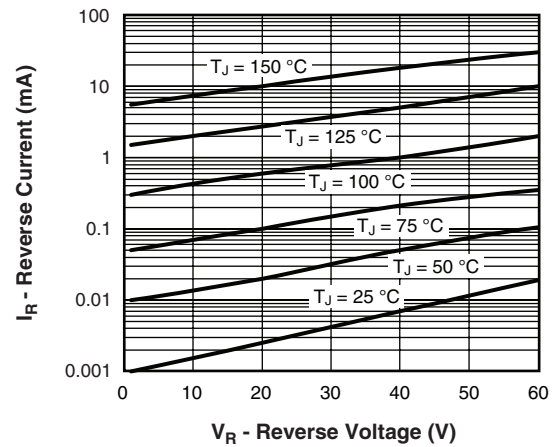


Fig. 2 - Typical Values of Reverse Current vs. Reverse Voltage (Per Leg)

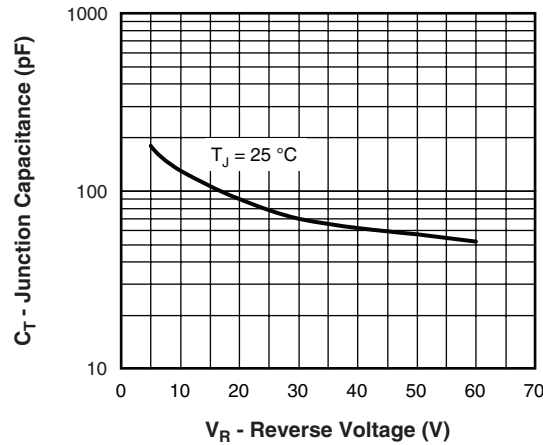
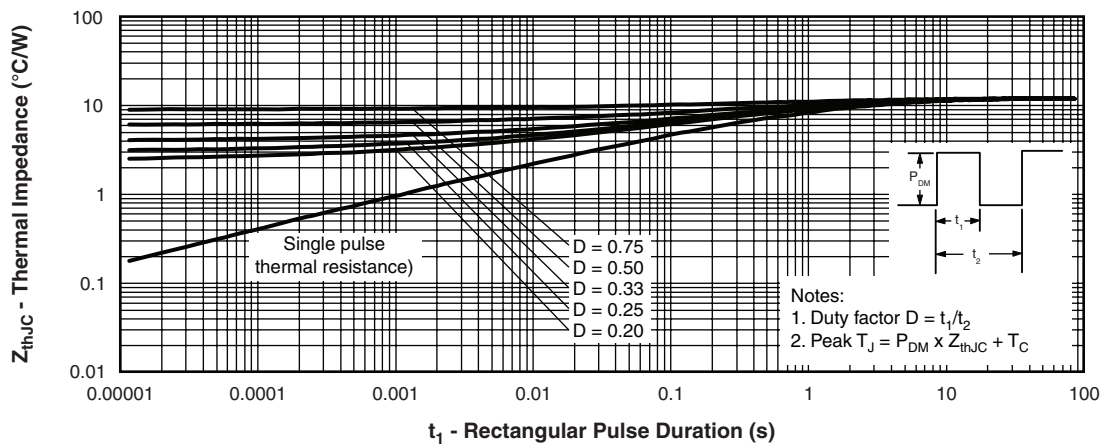


Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage (Per Leg)


Fig. 4 - Maximum Thermal Impedance Z_{thJC} Characteristics (Per Leg)

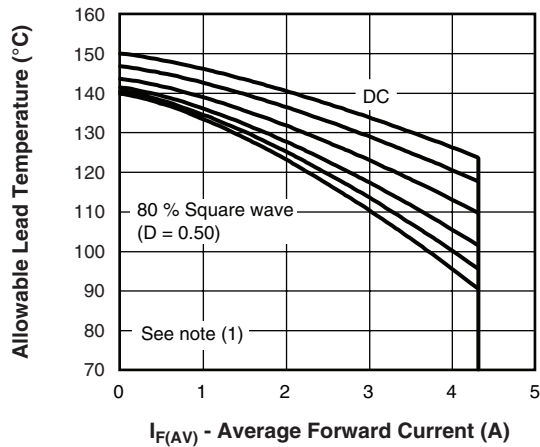


Fig. 5 - Maximum Average Forward Current vs. Allowable Lead Temperature

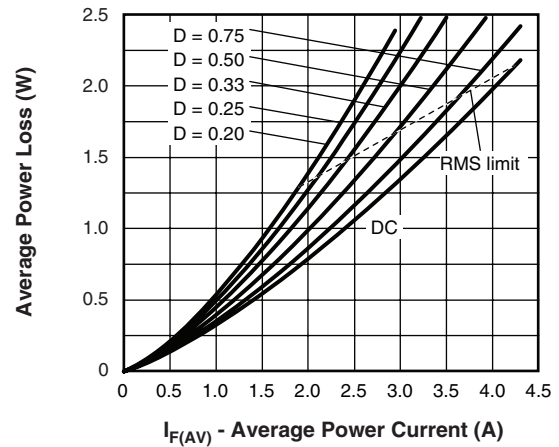


Fig. 6 - Maximum Average Forward Dissipation vs. Average Forward Current

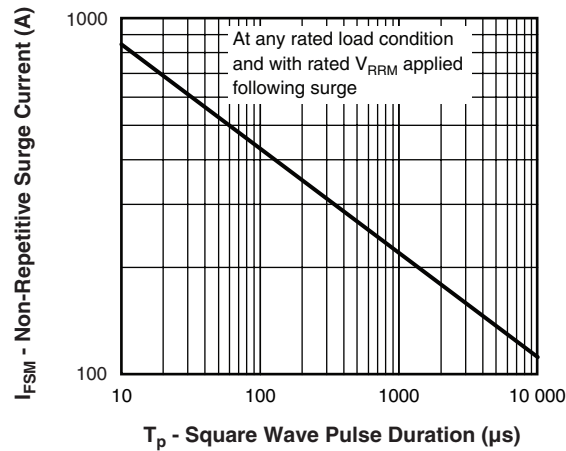


Fig. 7 - Maximum Peak Surge Forward Current vs. Pulse Duration

Note

- (1) Formula used: $T_C = T_J - (P_d + P_{d_{REV}}) \times R_{thJC}$;
 P_d = Forward power loss = $I_{F(AV)} \times V_{FM}$ at $(I_{F(AV)}/D)$ (see fig. 6);
 $P_{d_{REV}}$ = Inverse power loss = $V_{R1} \times I_R (1 - D)$; I_R at $V_{R1} = 80\%$ rated V_R

**ORDERING INFORMATION TABLE**

Device code	VS-	30	B	Q	060	TR	PbF
	1	2	3	4	5	6	7

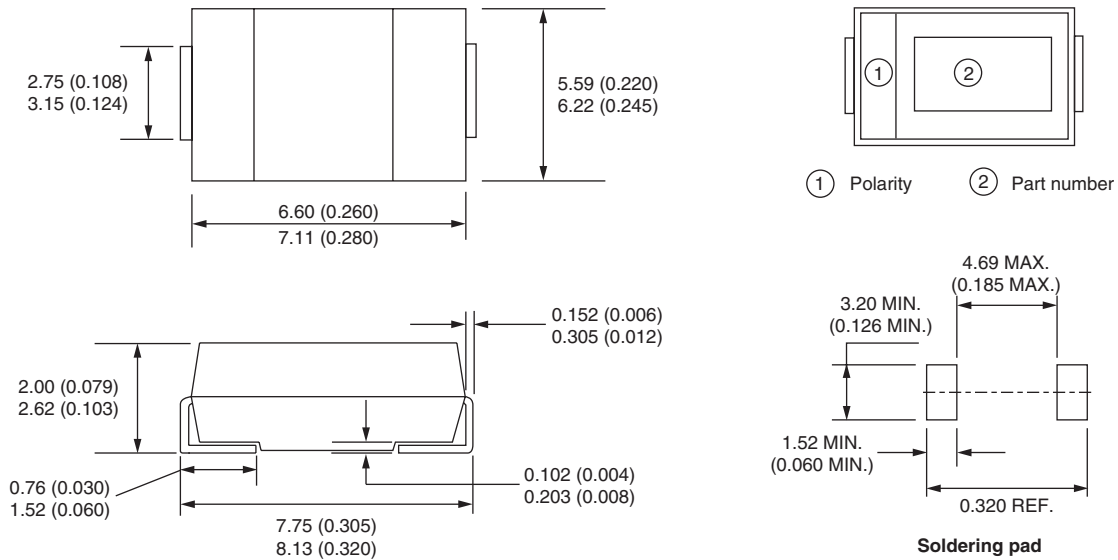
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|----------|---|--|
| 1 | - | HPP product suffix |
| 2 | - | Current rating |
| 3 | - | B = Single lead diode |
| 4 | - | Q = Schottky "Q" series |
| 5 | - | Voltage rating (060 = 60 V) |
| 6 | - | • None = Box (1000 pieces)
• TR = Tape and reel (3000 pieces) |
| 7 | - | PbF = Lead (Pb)-free |

LINKS TO RELATED DOCUMENTS	
Dimensions	www.vishay.com/doc?95023
Part marking information	www.vishay.com/doc?95029
Packaging information	Tape and reel www.vishay.com/doc?95034
	Bulk www.vishay.com/doc?95397



SMC

DIMENSIONS in millimeters (inches)





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