30BQ060PbF

Vishay High Power Products Schottky Rectifier, 3.0 A



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	CT	$V_{\rm R}$ = 5 $V_{\rm DC}$ (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}	DC operation	46			
Approximate weight			0.24	g		
			0.008	oz.		
Marking device		Case style SMC (similar to DO-214AB) V3H		H		

Notes

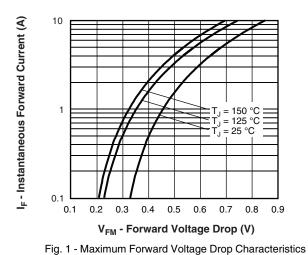
(1) $\frac{dP_{tot}}{dT_J} < \frac{1}{R_{thJA}}$ thermal runaway condition for a diode on its own heatsink

(2) Mounted 1" square PCB



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(Per Leg)

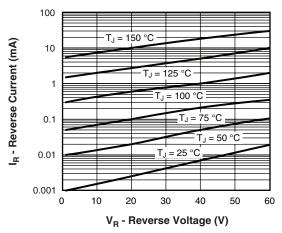


Fig. 2 - Typical Values of Reverse Current vs. Reverse Voltage (Per Leg)

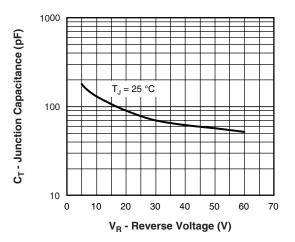
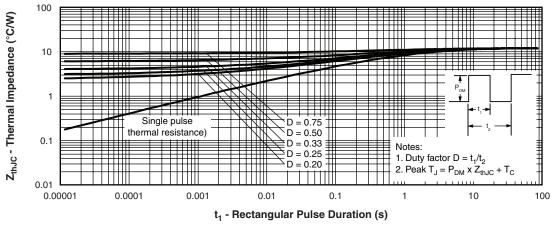


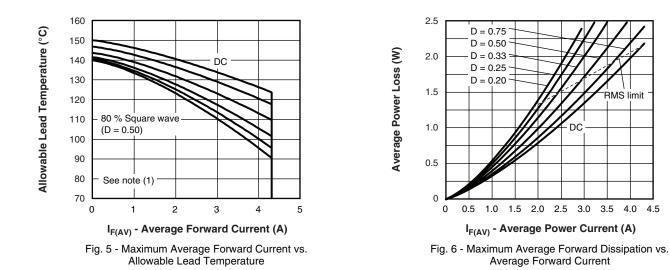
Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage (Per Leg)





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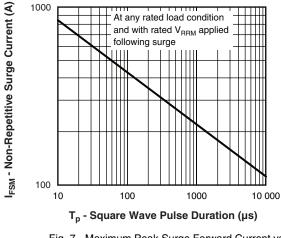


Fig. 7 - Maximum Peak Surge Forward Current vs. Pulse Duration

Note

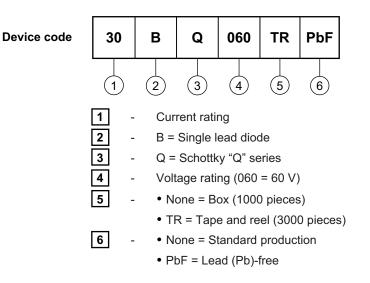
- (1) Formula used: $T_C = T_J (Pd + Pd_{REV}) \times R_{thJC};$ $Pd = Forward power loss = I_{F(AV)} \times V_{FM} at (I_{F(AV)}/D)$ (see fig. 6); $Pd_{REV} = Inverse power loss = V_{R1} \times I_R (1 D); I_R at V_{R1} = 80 \% rated V_R$



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ORDERING INFORMATION TABLE



LINKS TO RELATED DOCUMENTS				
Dimensions	http://www.vishay.com/doc?95023			
Part marking information	http://www.vishay.com/doc?95029			
Packaging information	http://www.vishay.com/doc?95034			



Vishay

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