

ELECTRICAL SPECIFICATIONS					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum forward voltage drop	V _{FM} ⁽¹⁾	2 A	T _J = 25 °C	0.470	V
		4 A		0.550	
		2 A	T _J = 125 °C	0.370	
		4 A		0.470	
Maximum reverse leakage current	I _{RM} ⁽¹⁾	T _J = 25 °C	V _R = Rated V _R	0.5	mA
		T _J = 125 °C		15	
Maximum junction capacitance	C _T	V _R = 5 V _{DC} , (test signal range 100 kHz to 1 MHz) 25 °C		200	pF
Typical series inductance	L _S	Measured lead to lead 5 mm from package body		2.0	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 and storage temperature range	$T_J^{(1)}, T_{Stg}$		- 55 to 150	$^{\circ}\text{C}$
Maximum thermal resistance, junction to lead	$R_{thJL}^{(2)}$	DC operation	25	$^{\circ}\text{C}/\text{W}$
Maximum thermal resistance, junction to ambient	R_{thJA}		80	
Approximate weight			0.10	g
			0.003	oz.
Marking device		Case style SMB (similar DO-214AA)	V2E	

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

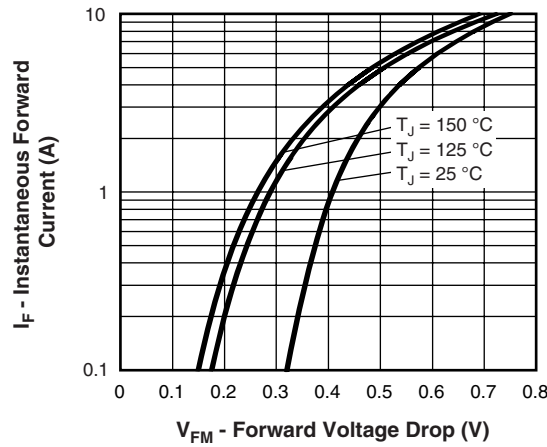


Fig. 1 - Maximum Forward Voltage Drop Characteristics

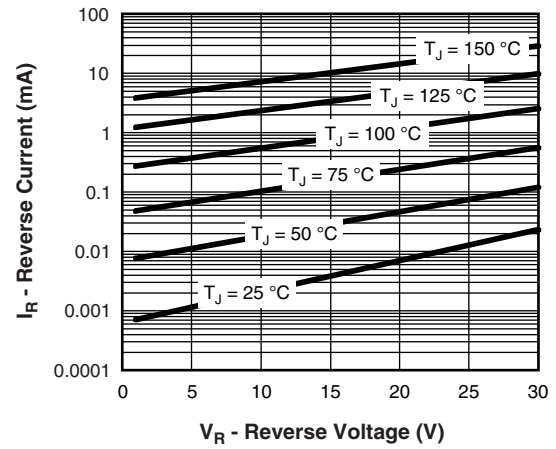


Fig. 2 - Typical Peak Reverse Current vs. Reverse Voltage

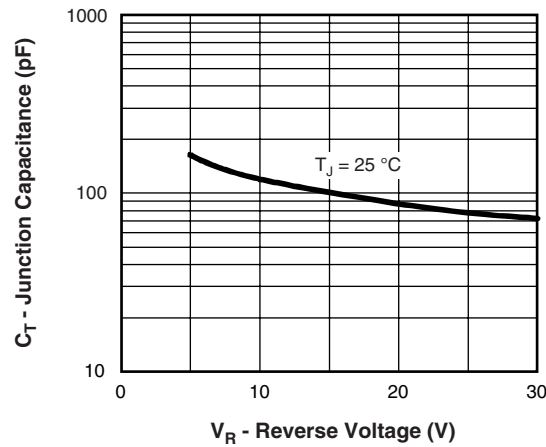
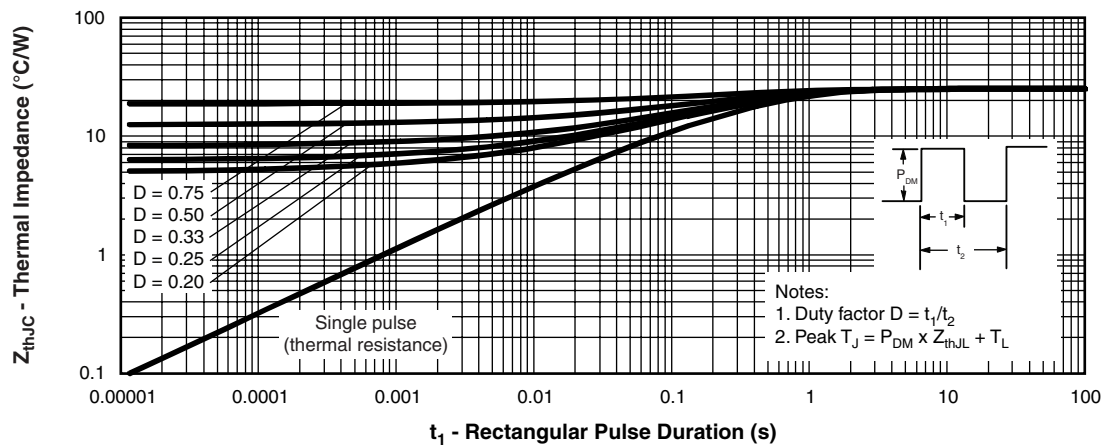


Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage


Fig. 4 - Maximum Thermal Impedance Z_{thJL} Characteristics

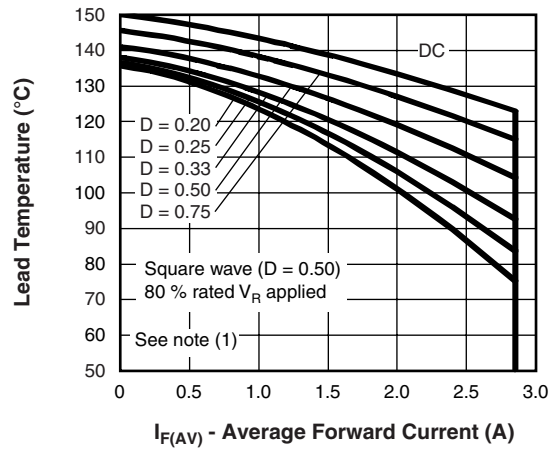


Fig. 5 - Maximum Average Forward Current vs. Allowable Lead Temperature

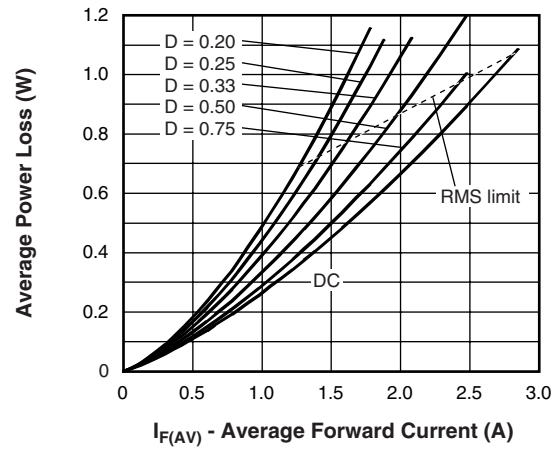


Fig. 6 - Maximum Average Forward Dissipation vs. Average Forward Current

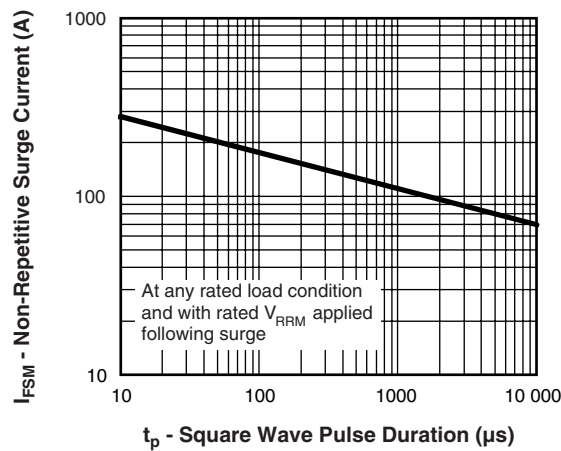


Fig. 7 - Maximum Peak Surge Forward Current vs. Pulse Duration

Note

- (1) Formula used: $T_L = T_J - (P_d + P_{d_{REV}}) \times R_{thJL}$;
 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	20	B	Q	030	TR	PbF
	①	②	③	④	⑤	⑥

- | | | |
|----------|---|---|
| 1 | - | Current rating |
| 2 | - | B = Single lead diode |
| 3 | - | Q = Schottky "Q" series |
| 4 | - | Voltage rating (030 = 30 V) |
| 5 | - | <ul style="list-style-type: none">• None = Box (1000 pieces)• TR = Tape and reel (3000 pieces) |
| 6 | - | <ul style="list-style-type: none">• None = Standard production• PbF = Lead (Pb)-free |

LINKS TO RELATED DOCUMENTS	
Dimensions	http://www.vishay.com/doc?95017
Part marking information	http://www.vishay.com/doc?95029
Packaging information	http://www.vishay.com/doc?95034
SPICE model	http://www.vishay.com/doc?95284



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