ELECTRICAL SPECIFICATIONS					
PARAMETER	**SYMBOL**	**TEST CONDITIONS**		**VALUES**	**UNITS**
Maximum forward voltage drop See fig. 1	V_{FM} (1)	1 A	T_J = 25 °C	0.78	V
		2 A		0.89	
		1 A	T_J = 125 °C	0.62	
		2 A		0.72	
Maximum reverse leakage current See fig. 2	I_{RM} (1)	T_J = 25 °C	V_R = Rated V_R	0.5	mA
		T_J = 125 °C		1	
Typical junction capacitance	C_T	V_R = 5 V_{DC}, (test signal range 100 kHz to 1 MHz) 25 °C		42	pF
Typical series inductance	L_S	Measured lead to lead 5 mm from package body		2.0	nH
Maximum voltage rate of charge	dV/dt	Rated V_R		10 000	V/µs

Note

(1) Pulse width < 300 µs, 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 175	°C
Maximum thermal resistance, junction to lead	R_{thJL} (2)	DC operation	36	°C/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)	V1J	

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

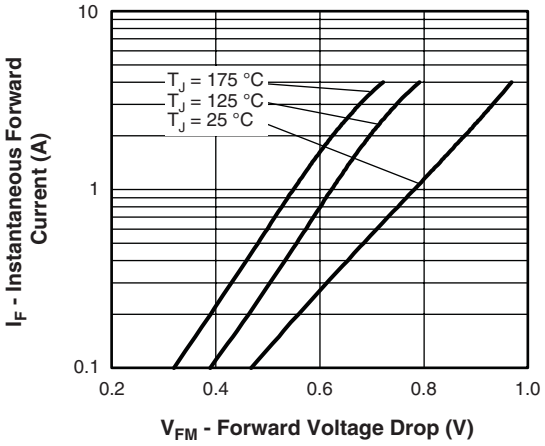

Fig. 1 - Maximum Forward Voltage Drop Characteristics

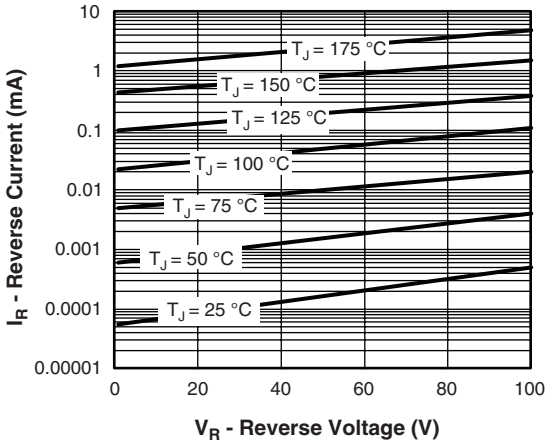

Fig. 2 - Typical Peak Reverse Current vs. Reverse Voltage

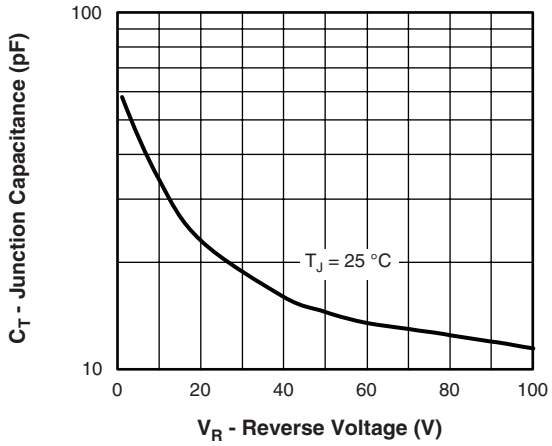

Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage

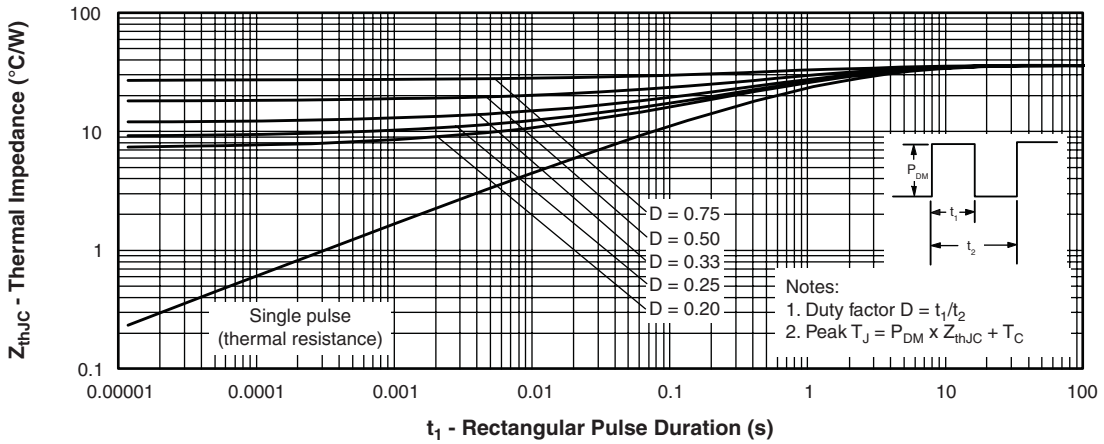

Fig. 4 - Maximum Thermal Impedance Z_{thJC} Characteristics (Per Leg)

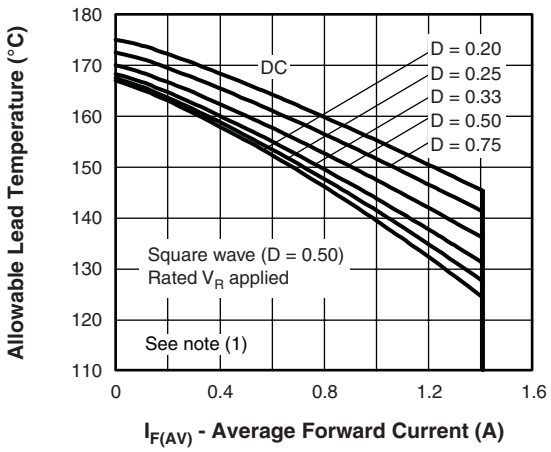

Fig. 5 - Maximum Average Forward Current vs. Allowable Lead Temperature

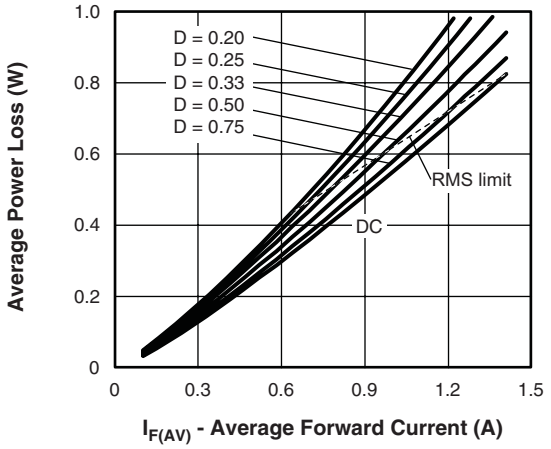

Fig. 6 - Maximum Average Forward Dissipation vs. Average Forward Current

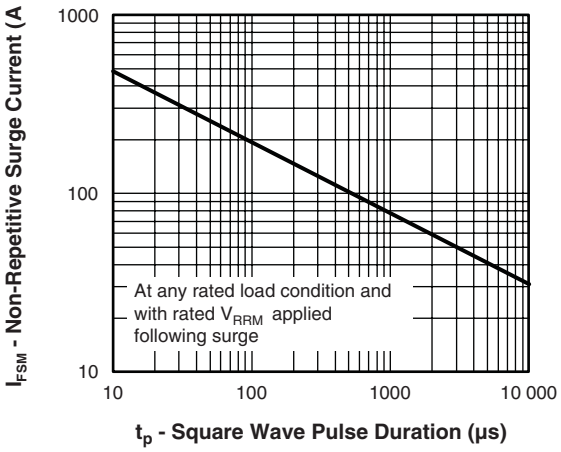

Fig. 7 - Maximum Peak Surge Forward Current vs. Pulse Duration

Note

(1) Formula used: $T_C = T_J - (Pd + Pd_{REV}) \times R_{thJC}$;
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

ORDERING INFORMATION TABLE

Device code

10	B	Q	100	TR	PbF
1	2	3	4	5	6

- 1 - Current rating
- 2 - B = Single lead diode
- 3 - Q = Schottky “Q” series
- 4 - Voltage rating (100 = 100 V)
- 5 - • None = Box (1000 pieces)
  • TR = Tape and reel (3000 pieces)
- 6 - • 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?95276

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