

ELECTRICAL SPECIFICATIONS					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum forward voltage drop per leg See fig. 1	V _{FM} ⁽¹⁾	1 A	T _J = 25 °C	0.79	V
		2 A		0.89	
		1 A	T _J = 125 °C	0.67	
		2 A		0.76	
Maximum reverse leakage current per leg See fig. 2	I _{RM} ⁽¹⁾	T _J = 25 °C	V _R = Rated V _R	0.1	mA
		T _J = 125 °C		10	
Typical junction capacitance per leg	C _T	V _R = 5 V _{DC} (test signal range 100 kHz to 1 MHz) 25 °C		45	pF
Typical series inductance per leg	L _S	Measured lead to lead 5 mm from package body		6	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 175	$^{\circ}\text{C}$
Maximum thermal resistance, junction to ambient	R_{thJL}	DC operation	25	$^{\circ}\text{C/W}$
Maximum thermal resistance, junction to lead	R_{thJA}		65	
Approximate weight			0.13	g
			0.0045	oz.
Marking device		Case style SOT-223	2CJQJ	

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

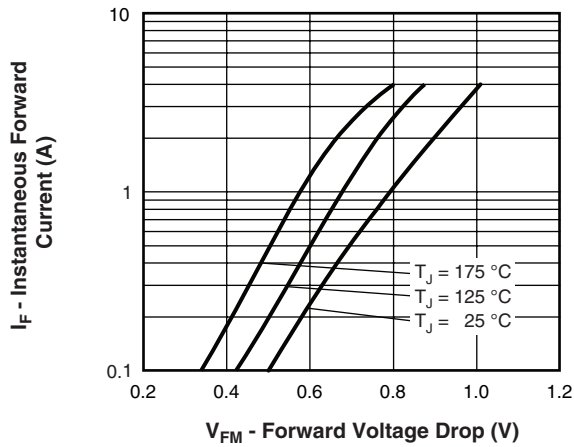


Fig. 1 - Maximum Forward Voltage Drop Characteristics

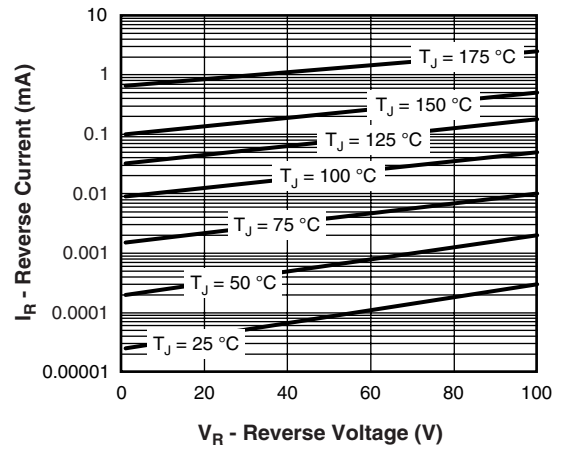


Fig. 2 - Typical Values of Reverse Current vs. Reverse Voltage

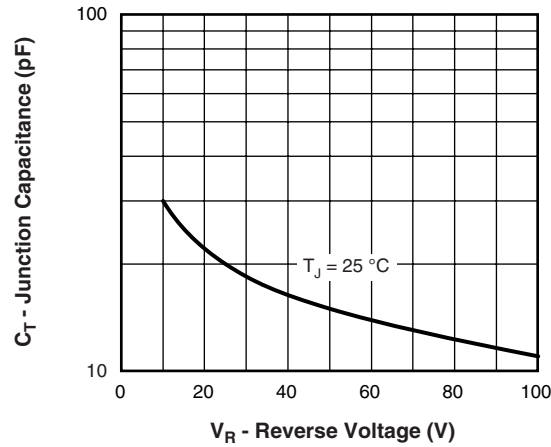
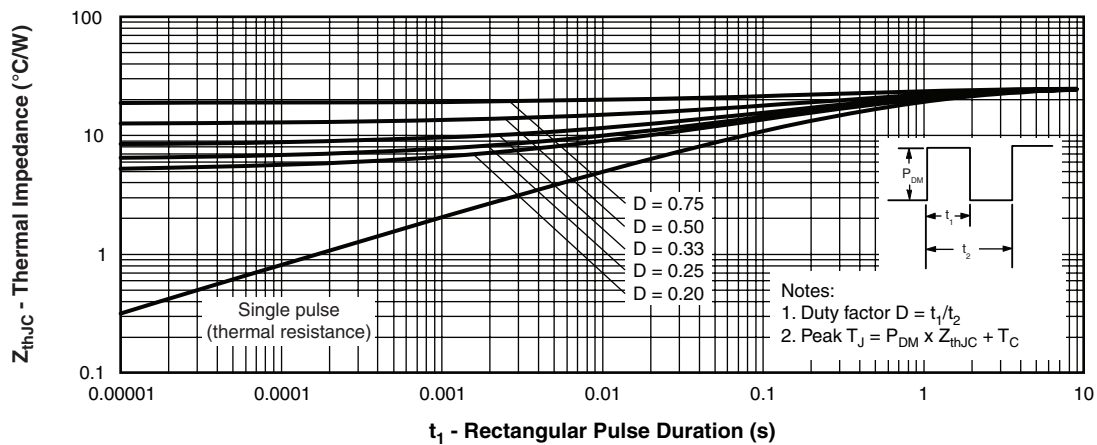


Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage


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

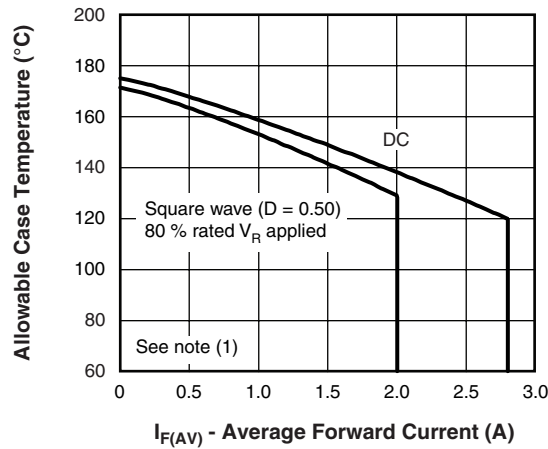


Fig. 5 - Maximum Allowable Case Temperature vs. Average Forward Current

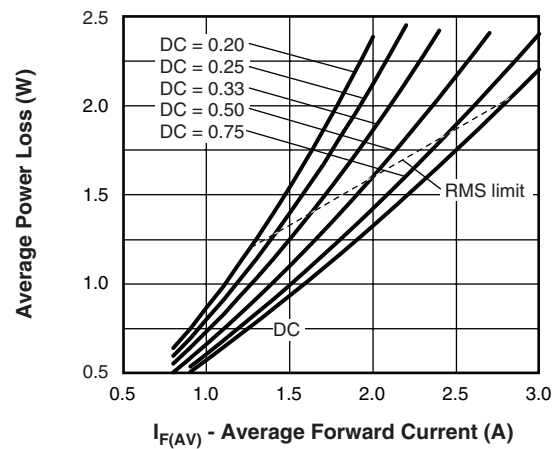


Fig. 6 - Forward Power Loss Characteristics

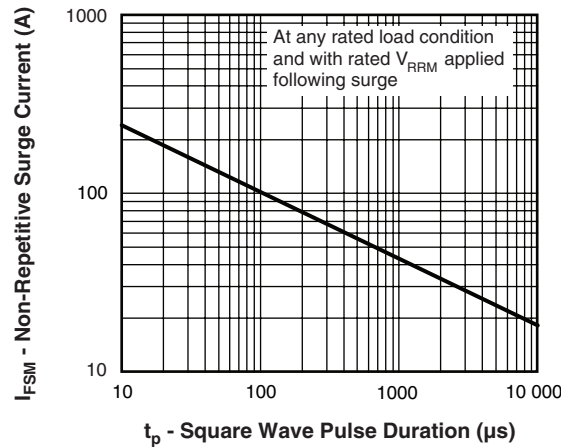


Fig. 7 - Maximum Non-Repetitive Surge Current (Per Leg)

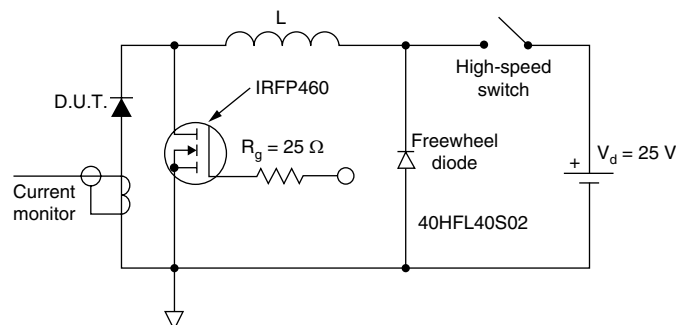


Fig. 8 - Unclamped Inductive Test Circuit

Note

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

**ORDERING INFORMATION TABLE**

Device code	2	0	C	J	Q	100	-
	①	②	③	④	⑤	⑥	⑦
	1	-	Current rating (2 = 2 A)				
	2	-	Schottky rectifier series				
	3	-	Circuit configuration: C = Common cathode				
	4	-	Package: J = SOT-223				
	5	-	Schottky "Q" series				
	6	-	Voltage rating (100 = 100 V)				
	7	-	• None = Standard production • PbF = Lead (Pb)-free				

LINKS TO RELATED DOCUMENTS	
Dimensions	http://www.vishay.com/doc?95022
Part marking information	http://www.vishay.com/doc?95031
Packaging information	http://www.vishay.com/doc?95035



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