ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum forward voltage drop See fig. 1	V_{FM} (1)	1.0 A	T_J = 25 °C	0.58	V
		3.0 A		0.73	
		9.4 A		1.06	
		1.0 A	T_J = 125 °C	0.49	
		3.0 A		0.64	
		9.4 A		0.89	
Maximum reverse leakage current See fig. 2	I_{RM} (1)	T_J = 25 °C	V_R = Rated V_R	0.6	mA
		T_J = 100 °C		8	
		T_J = 125 °C		15	
Typical junction capacitance	C_T	V_R = 5 V_{DC} (test signal range 100 kHz to 1 MHz) 25 °C		190	pF
Typical series inductance	L_S	Measured lead to lead 5 mm from package body		9.0	nH
Maximum voltage rate of change	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}		- 40 to 150	°C
Maximum thermal resistance, junction to lead	R_{thJL} (2)	DC operation See fig. 4	30	°C/W
Approximate weight			1.2	g
			0.042	oz.
Marking device		Case style C-16	MBR350	
			MBR360	

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, thermal probe connected to lead 2 mm from package

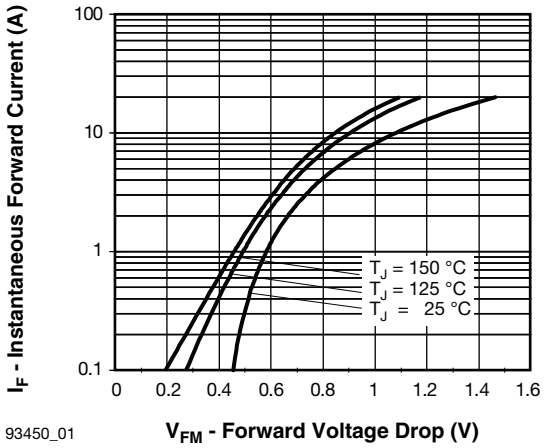


Fig. 1 - Maximum Forward Voltage Drop Characteristics

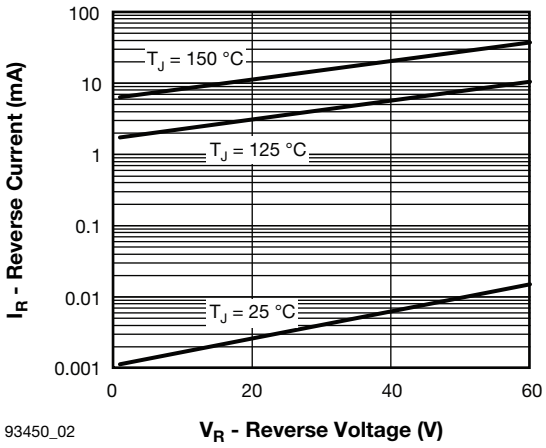


Fig. 2 - Typical Values of Reverse Current vs. Reverse Voltage

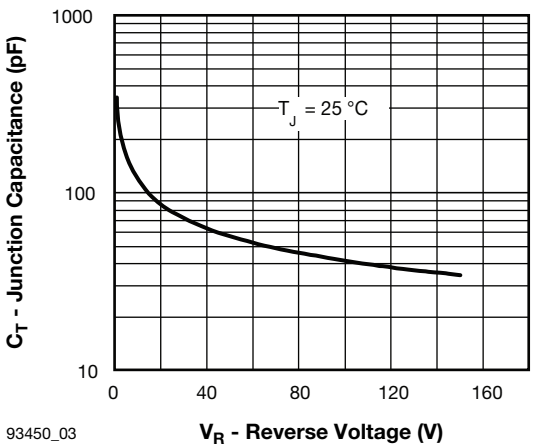


Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage

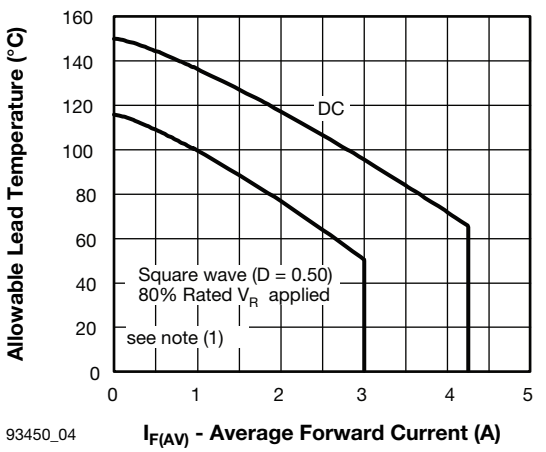


Fig. 4 - Maximum Allowable Lead Temperature vs. Average Forward Current

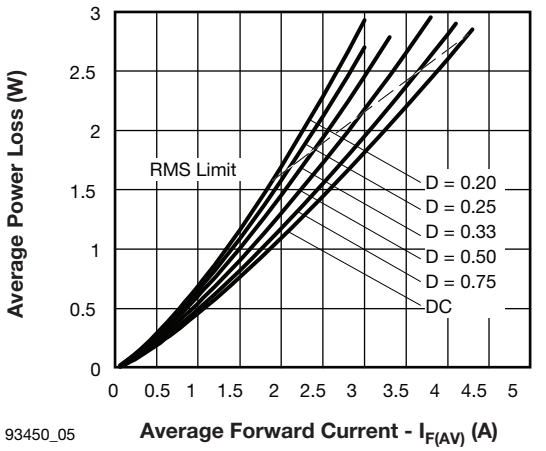


Fig. 5 - Forward Power Loss Characteristics

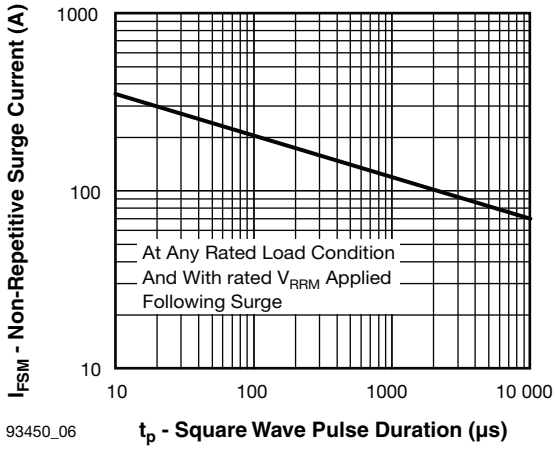


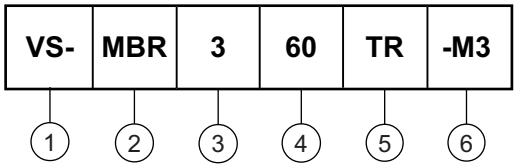
Fig. 6 - Maximum Non-Repetitive Surge Current

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



1 - Vishay Semiconductors product

2 - Schottky MBR series

3 - Current rating: 3 = 3 A

4 - Voltage rating — 50 = 50 V, 60 = 60 V

5 - TR = Tape and reel package
None = Bulk package

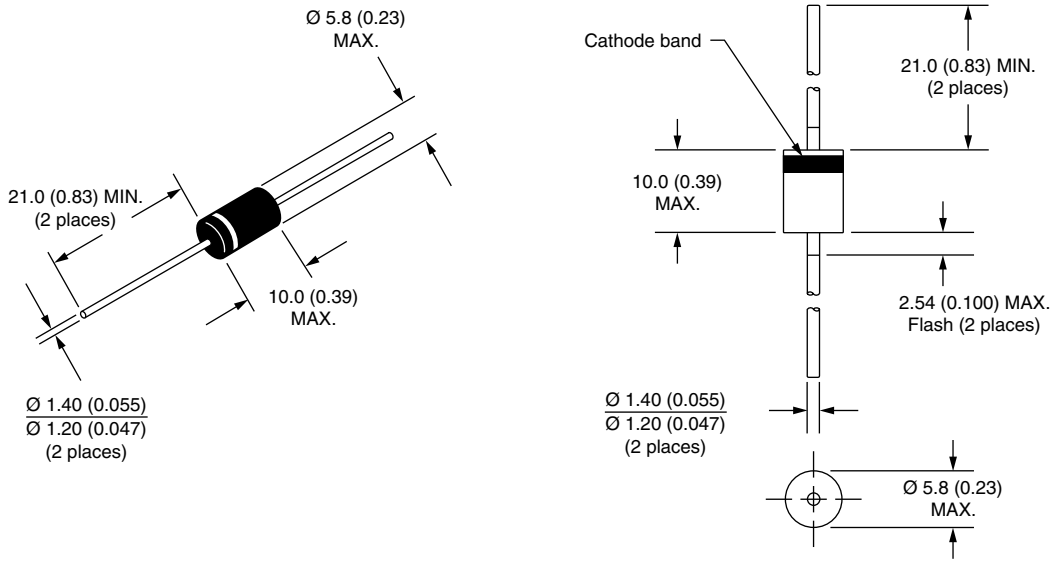
6 - Environmental digit
- None = Lead (Pb)-free and RoHS compliant
- -M3 = Halogen-free, RoHS compliant, and terminations lead (Pb)-free

ORDERING INFORMATION (Example)			
PREFERRED P/N	**QUANTITY PER T/R**	**MINIMUM ORDER QUANTITY**	**PACKAGING DESCRIPTION**
VS-MBR350	500	500	Bulk
VS-MBR350TR	1200	1200	Tape and reel
VS-MBR350-M3	500	500	Bulk
VS-MBR350TR-M3	1200	1200	Tape and reel
VS-MBR360	500	500	Bulk
VS-MBR360TR	1200	1200	Tape and reel
VS-MBR360-M3	500	500	Bulk
VS-MBR360TR-M3	1200	1200	Tape and reel

LINKS TO RELATED DOCUMENTS	
Dimensions	www.vishay.com/doc?95242
Part marking information	www.vishay.com/doc?95304
Packaging information	www.vishay.com/doc?95338

Axial DO-201AD (C-16)

DIMENSIONS in millimeters (inches)



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