



ELECTRICAL SPECIFICATIONS					
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES	UNITS
Maximum forward voltage drop See fig. 1	V _{FM} ⁽¹⁾	8 A	T _J = 25 °C	0.53	V
		16 A		0.60	
		8 A	T _J = 125 °C	0.44	
		16 A		0.55	
Maximum reverse leakage current See fig. 2	I _{RM} ⁽¹⁾	T _J = 25 °C	V _R = Rated V _R	2	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		900	pF
Typical series inductance	L _S	Measured lead to lead 5 mm from package body		10.0	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, T_{Stg}		- 55 to 175	$^{\circ}\text{C}$
Maximum thermal resistance, junction to lead	R_{thJL}	DC operation; see fig. 4 1/8" lead length	8.0	$^{\circ}\text{C/W}$
Typical thermal resistance, junction to air	R_{thJA}		44	
Approximate weight			1.4	g
			0.049	oz.
Marking device		Case style DO-204AR (JEDEC)	80SQ030	
			80SQ035	
			80SQ040	
			80SQ045	

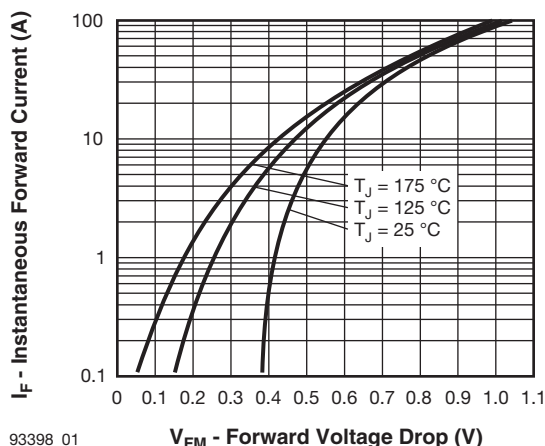


Fig. 1 - Maximum Forward Voltage Drop Characteristics

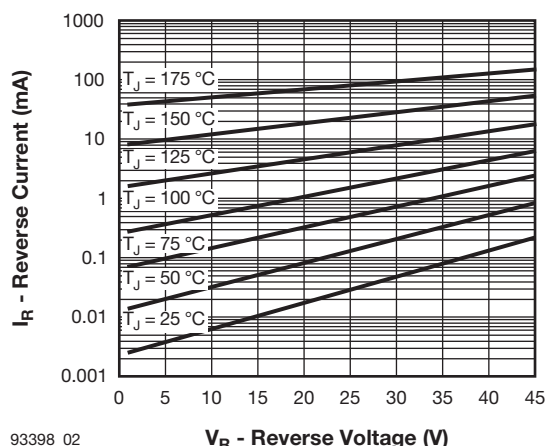


Fig. 2 - Typical Values of Reverse Current vs. Reverse Voltage

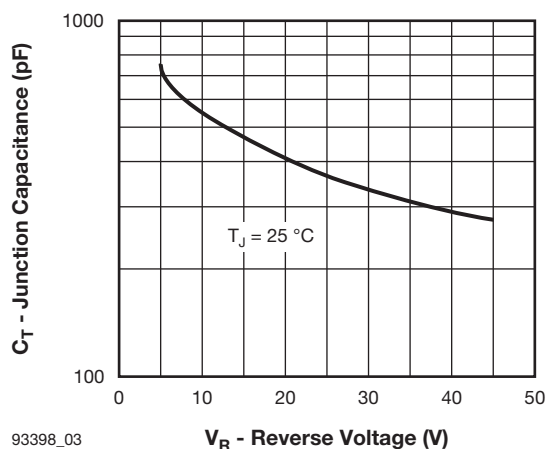
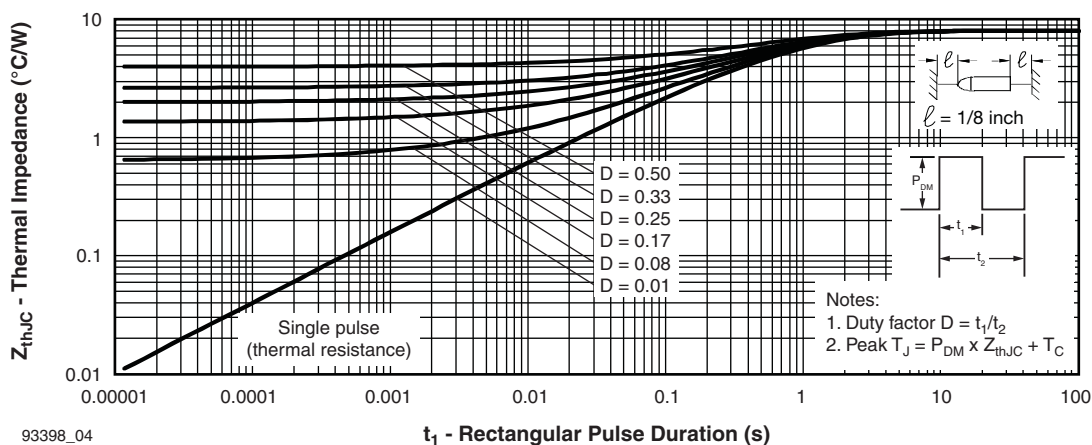


Fig. 3 - Typical Junction Capacitance vs. Reverse Voltage


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

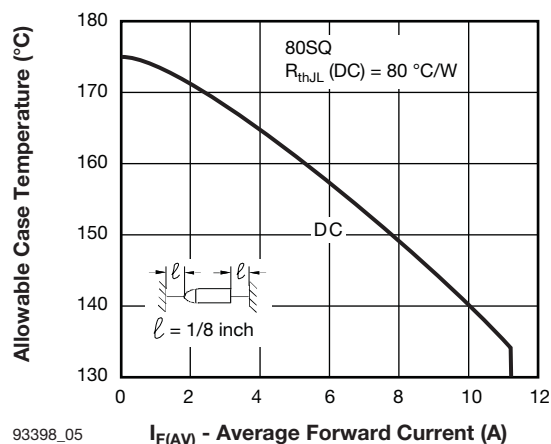


Fig. 5 - Maximum Allowable Case Temperature vs. Average Forward Current

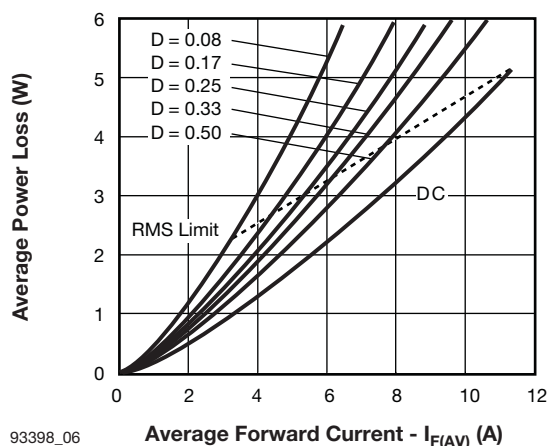


Fig. 6 - Forward Power Loss Characteristics

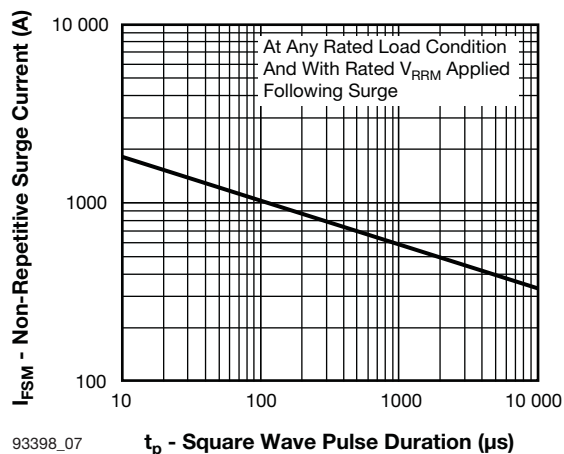


Fig. 7 - Maximum Non-Repetitive Surge Current

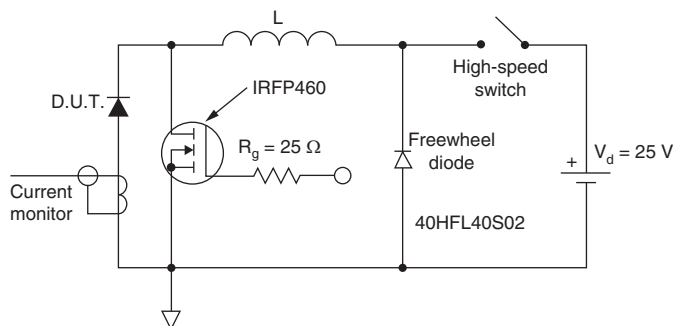


Fig. 8 - Unclamped Inductive Test Circuit

**ORDERING INFORMATION TABLE**

Device code	VS-	80	S	Q	045	TR	-M3
	1	2	3	4	5	6	7
1	Vishay Semiconductors product						
2	80 = Current x 10						
3	S = DO-204AR						
4	Q = Schottky Q.. series						
5	Voltage rating						
6	• TR = Tape and reel package						
	• None = Bulk package						
7	Environmental digit						
	• None = Lead (Pb)-free and RoHS compliant						
	• -M3 = Halogen-free, RoHS compliant, and terminations lead (Pb)-free						

030 = 30 V
035 = 35 V
040 = 40 V
045 = 45 V

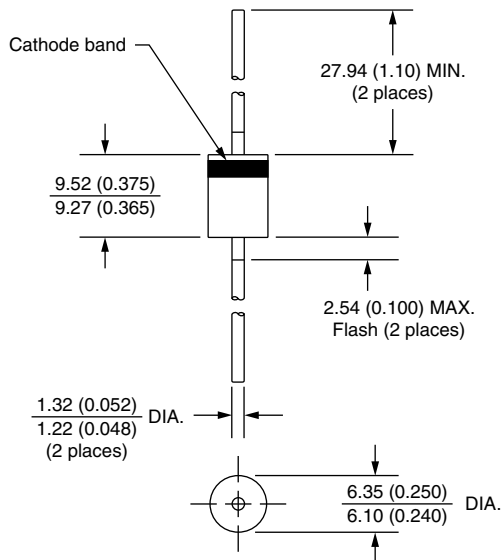
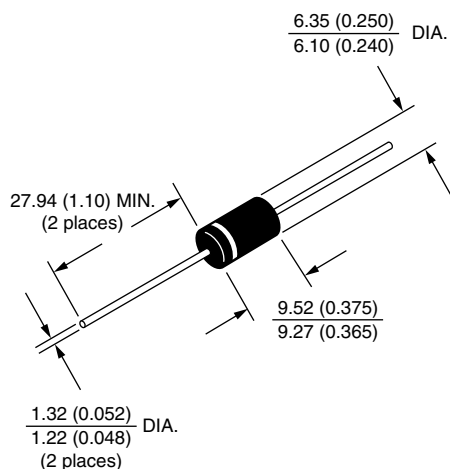
ORDERING INFORMATION (Example)			
PREFERRED P/N	QUANTITY PER T/R	MINIMUM ORDER QUANTITY	PACKAGING DESCRIPTION
VS-80SQ030	300	300	Bulk
VS-80SQ030TR	1500	1500	Tape and reel
VS-80SQ030-M3	300	300	Bulk
VS-80SQ030TR-M3	1500	1500	Tape and reel
VS-80SQ035	300	300	Bulk
VS-80SQ035TR	1500	1500	Tape and reel
VS-80SQ035-M3	300	300	Bulk
VS-80SQ035TR-M3	1500	1500	Tape and reel
VS-80SQ040	300	300	Bulk
VS-80SQ040TR	1500	1500	Tape and reel
VS-80SQ040-M3	300	300	Bulk
VS-80SQ040TR-M3	1500	1500	Tape and reel
VS-80SQ045	300	300	Bulk
VS-80SQ045TR	1500	1500	Tape and reel
VS-80SQ045-M3	300	300	Bulk
VS-80SQ045TR-M3	1500	1500	Tape and reel

LINKS TO RELATED DOCUMENTS	
Dimensions	www.vishay.com/doc?95243
Part marking information	www.vishay.com/doc?95325
Packaging information	www.vishay.com/doc?95338



Axial DO-204AR

DIMENSIONS in millimeters (inches)





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