

SHINDENGEN

Varistor

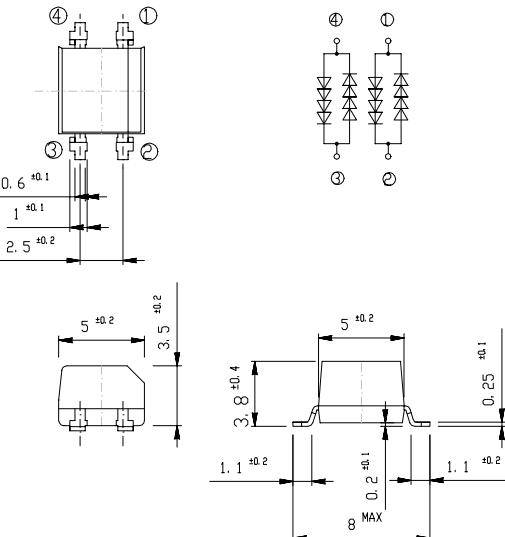
SMD

VRYA15

OUTLINE DIMENSIONS

Case : 1Y

(Unit : mm)



RATINGS

● Absolute Maximum Ratings

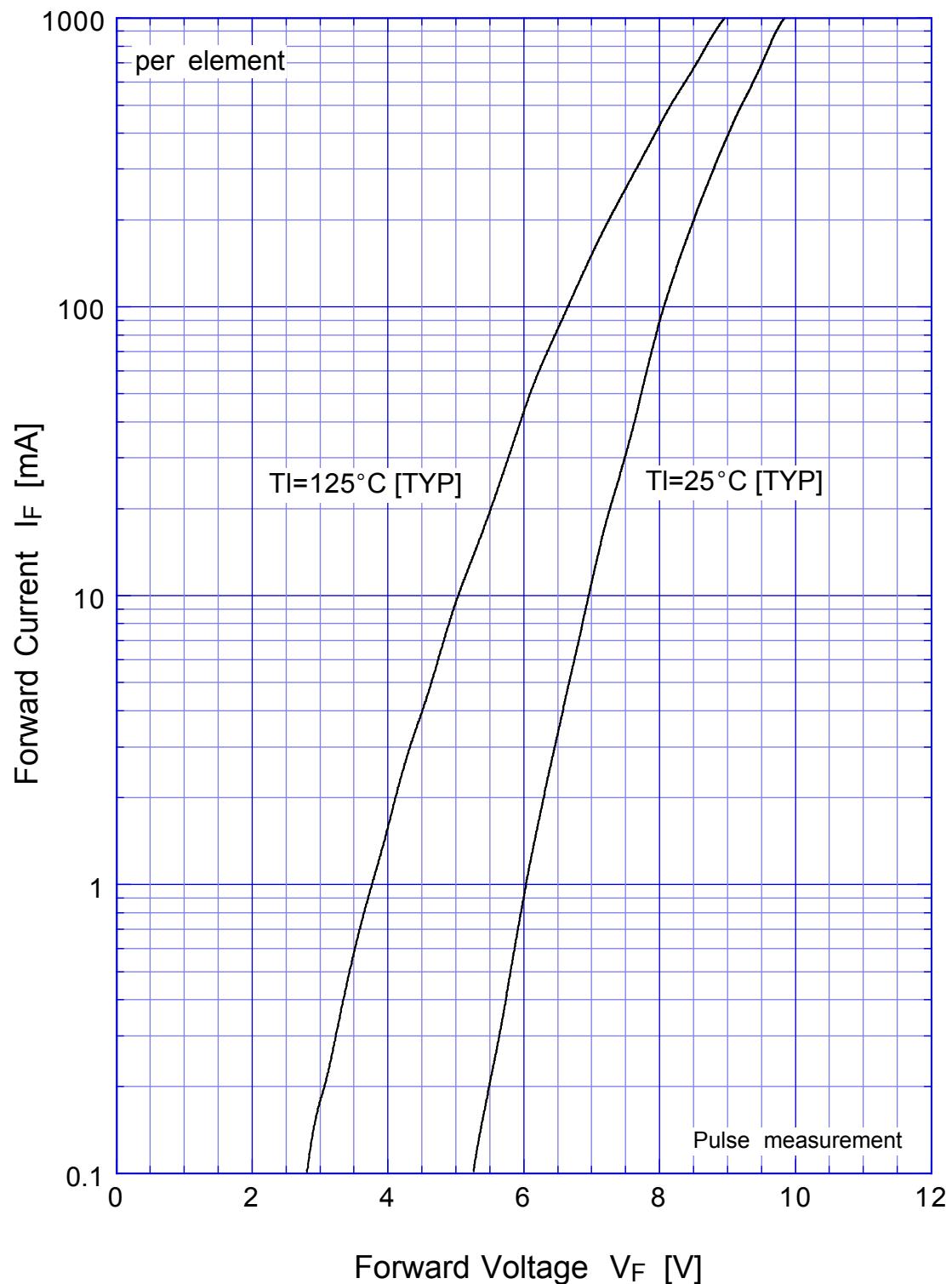
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-30~125	°C
Junction Temperature	T _j		125	°C
Average Rectified Forward Current	I _O	Ta = 40°C, Sine wave, R-load, Commercial frequency, On alumina substrate, 1 element operation	140	mA rms
		Ta = 40°C, Sine wave, R-load, Commercial frequency, On alumina substrate, 2 elements operation	90	
		Ta = 40°C, Sine wave, R-load, Commercial frequency, On glass-epoxy substrate, 1 element operation	90	
		Ta = 40°C, Sine wave, R-load, Commercial frequency, On glass-epoxy substrate, 2 elements operation	50	
Peak Surge Forward Current	I _{FSM}	50Hz, Sine wave, Non-repetitive, 2 elements series operation	6.5	Arms
		10/200 μs, Non-repetitive, 2 elements series operation	50	A
		10/1000 μs, Non-repetitive, 2 elements series operation	24	A

● Electrical Characteristics (TJ=25°C)

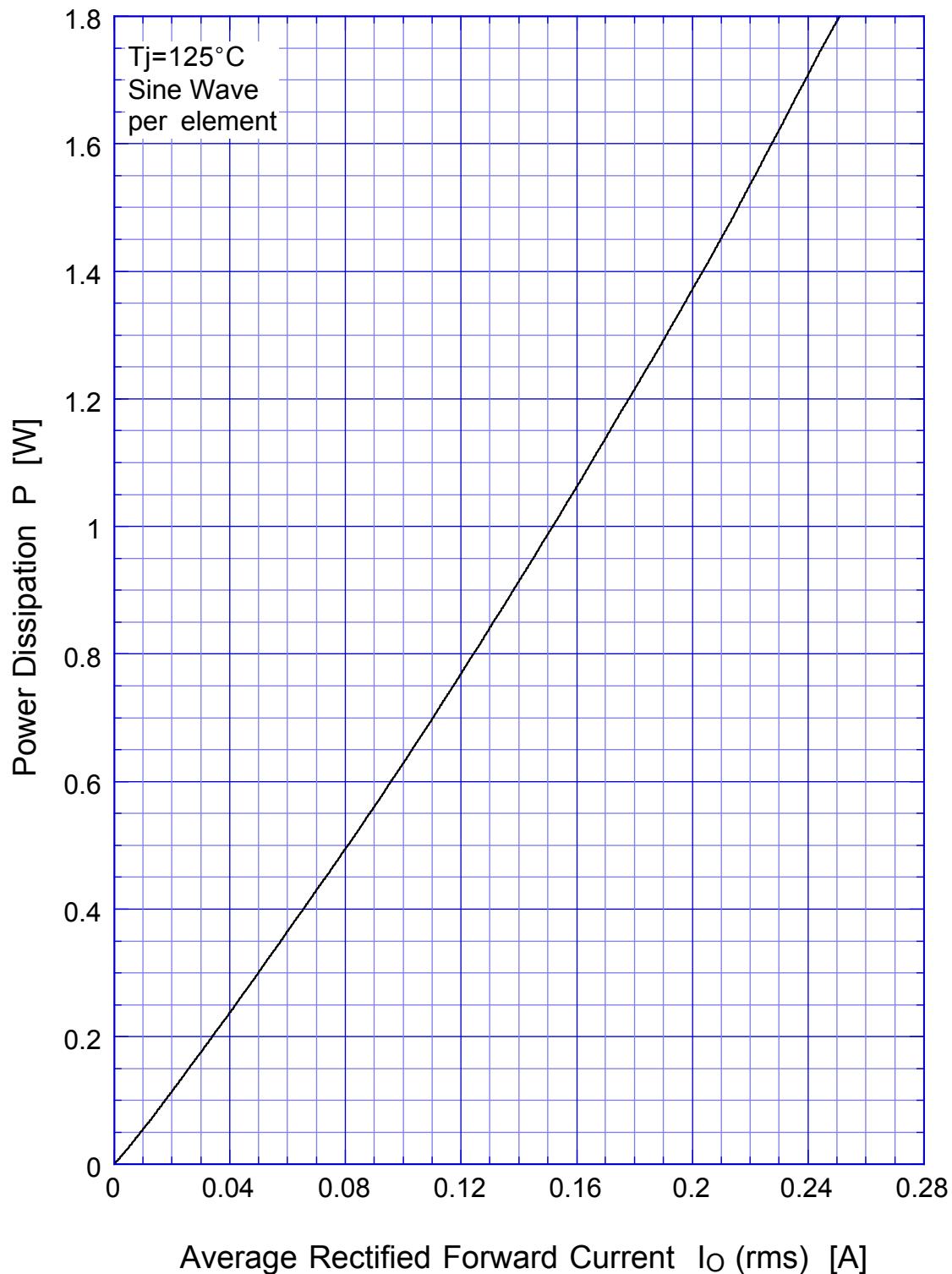
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V _F	I _F = 1mA, 1 element	5.13~6.37	V
		I _F = 1mA, 2 elements series	10.25~12.75	
		I _F = 10mA, 1 element	6.25~7.50	
		I _F = 10mA, 2 elements series	12.50~15.00	
		I _F = 70mA, 1 element	7.13~8.37	
		I _F = 70mA, 2 elements series	14.25~16.75	
Junction Capacitance	C _j	f = 100kHz, V _D = 0V, OSC = 50mV	TYP 5	pF
Thermal Resistance	θ ja	Junction to ambient, On alumina substrate, 1 element operation	MAX 90	°C/W
		Junction to ambient, On alumina substrate, 2 elements operation	MAX 150	
		Junction to ambient, On glass-epoxy substrate, 1 element operation	MAX 150	
		Junction to ambient, On glass-epoxy substrate, 2 elements operation	MAX 250	

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Forward Voltage

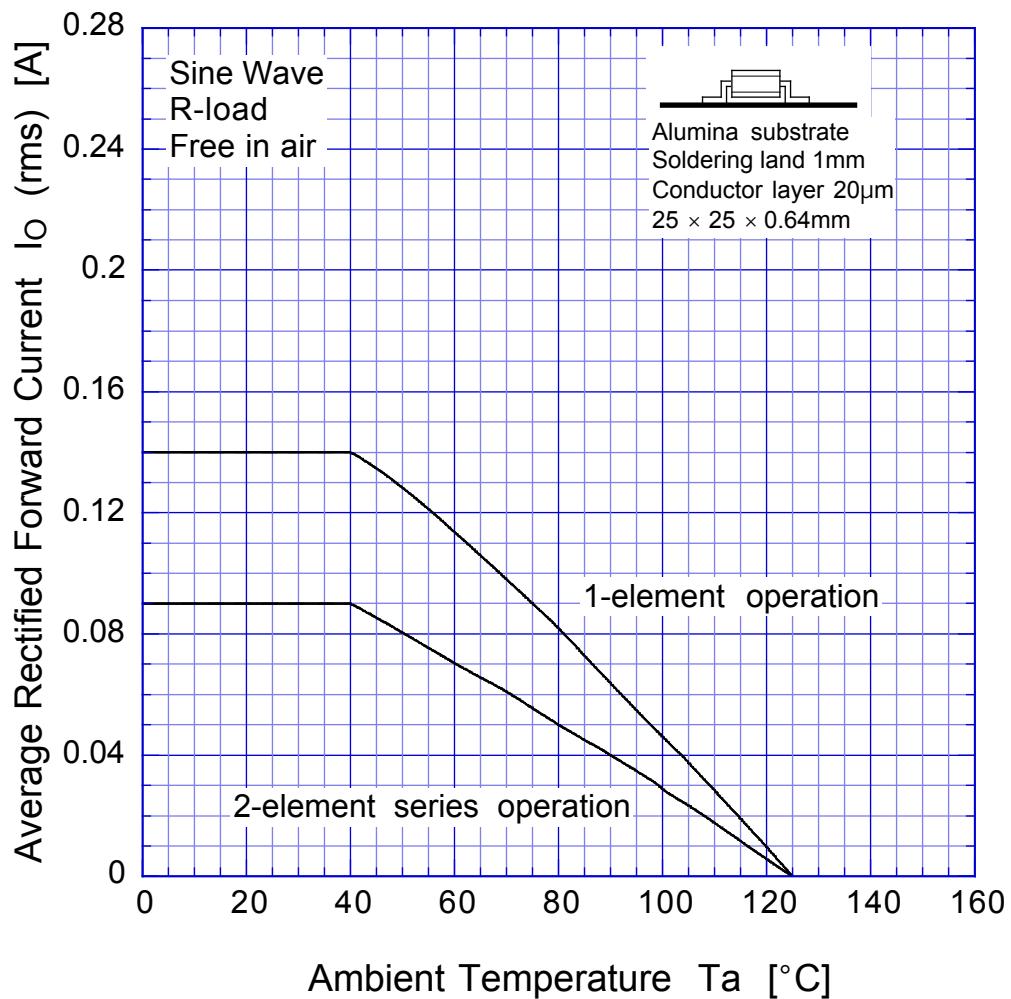


VRYA15 Forward Power Dissipation



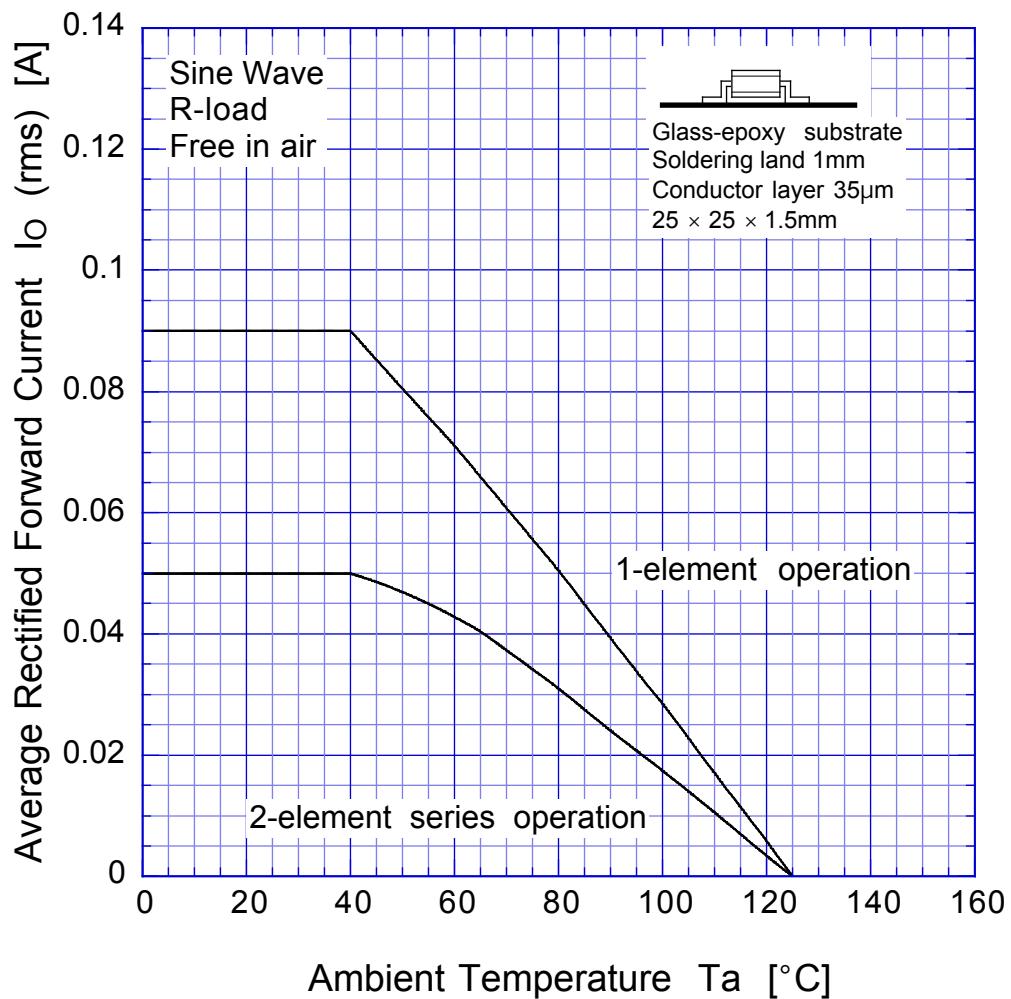
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Derating Curve



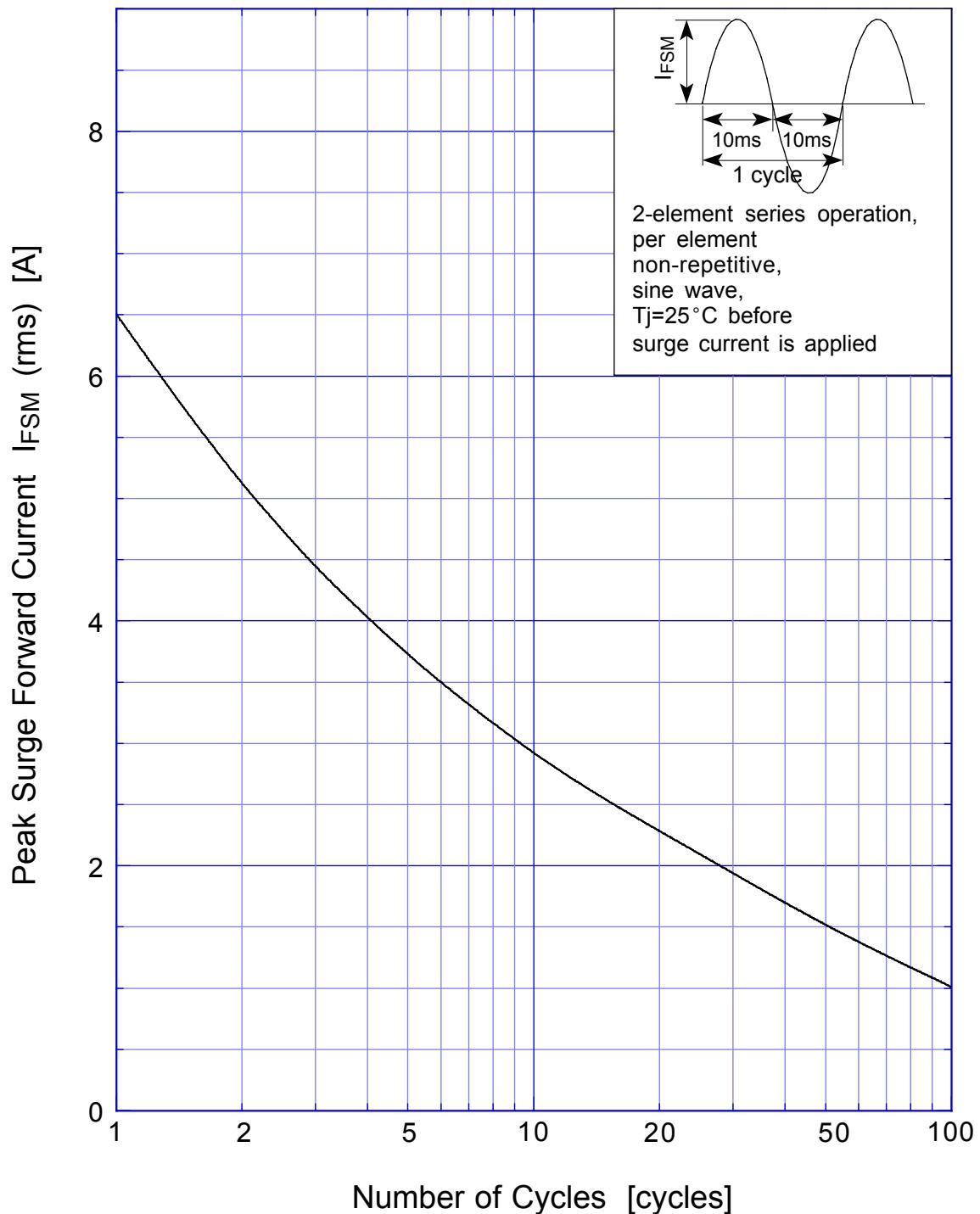
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Derating Curve



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Peak Surge Forward Capability



VRYA15 Junction Capacitance

