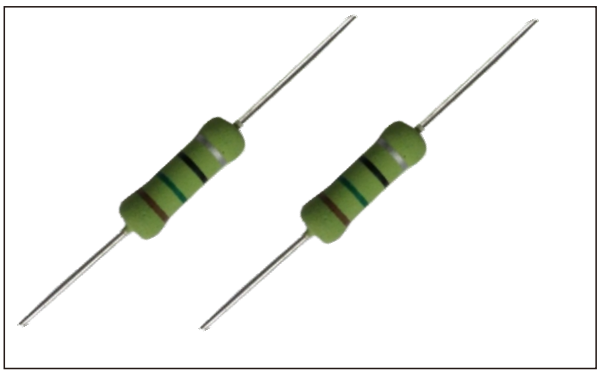
HVY Ceramic Composition Resistors

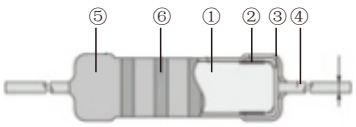


The HVY Series of fixed ceramic resistors are ideal for circuitry associated with surges, high peak power or high energy. They offer enhanced performance in high voltage power supplies, R-C snubber circuits,and inrush limiters.

Features

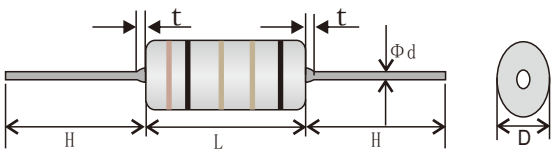
Ⅰ High inrush current resistor and low inductivity
Ⅱ Meets high energy density demands .
Ⅲ High peak power and High voltage
Ⅳ 10% Tolerance.

Construction



①	Resistive body	④	Lead wire
②	Inner electrode	⑤	Coating
③	Electrode cap	⑥	Marking

Dimensions



Type	Power	Dimensions(mm)				
		L±1.0	D±1.0	d±0.05	H±3	t Max
HVY	0.5W	10.0	3.5	0.7	30.0	1.5
HVY	1W	16.5	5.5	0.8	38.0	1.5
HVY	2W	19.0	7.0	0.8	38.0	1.5

Applications And Ratings

Type	Power	Resistance range(Ω)	Joules max.*	Max. working volts	Dielectric Strength	Max Overload Voltage	Max Pulse Voltage1
HVY	0.5W	4.7Ω-100K	30	200	500	400	10K
HVY	1W	3.3Ω-100K	50	300	500	600	14K
HVY	2W	3.3Ω-1M	80	400	700	800	20K

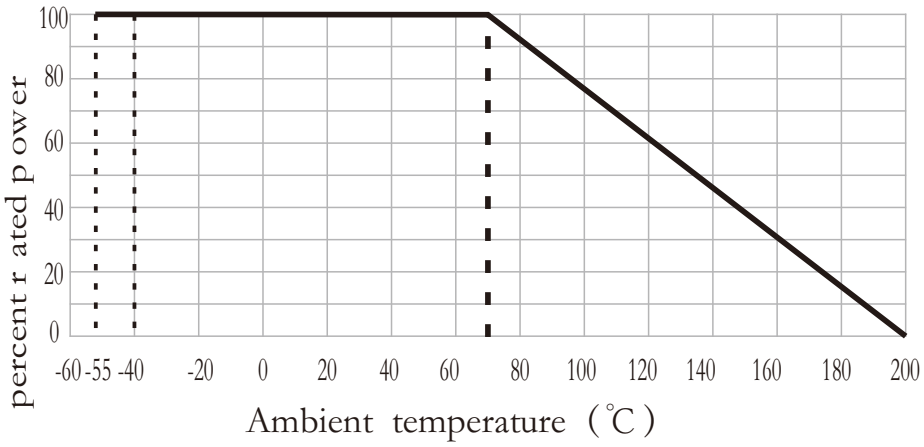
Ordering Information

Example:

HVY	01	K	T	R100
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Packaging	Resistance

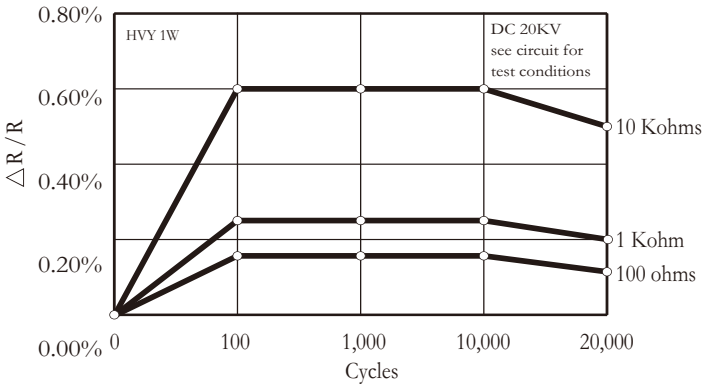
(1)Type: HVY SERIES
(2)Power Rating: 05=0.5W.01=1W,02=2W
(3)Tolerance:K=±10%
(4)Packaging :T = tape & reel、B = bulk
(5)Resistance Value:R100=0.1R、1R00=1Ω、10R0=10Ω、100R0=100Ω

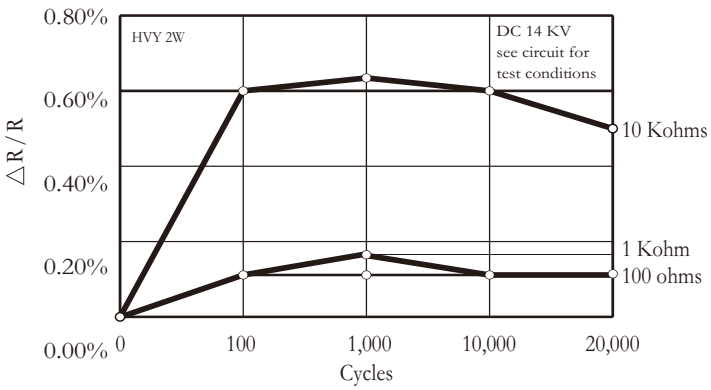
Derating Curve



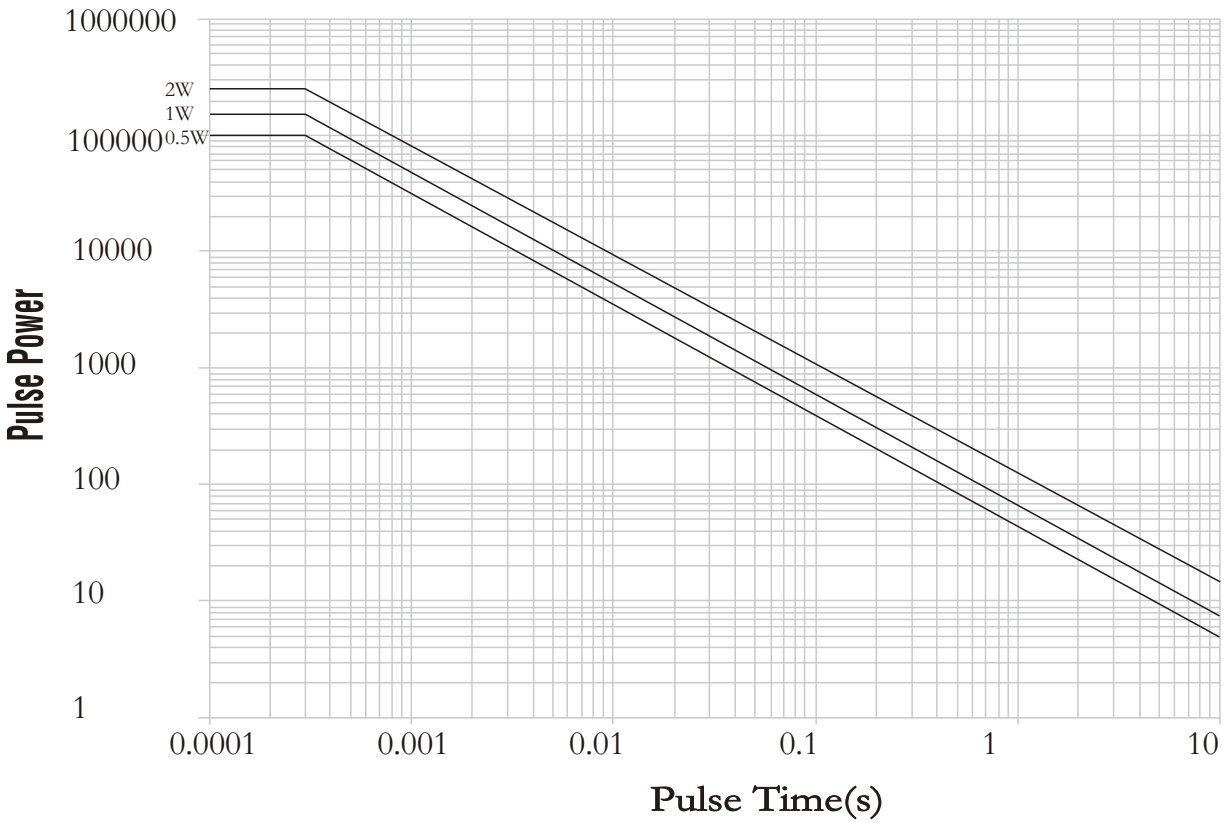
For resistors operated at an ambient temperature of 70℃ or above,the power rating should be derated in accordance with the above derating curve.

Resistance to Pulse





Pulse Limiting Power(Po) One Pulse



Performance

Test Items	Test Condition	Maximum ΔR
Life Test	MIL-STD-202, Method 108	±5%
Short Time Overload	2x rated V, 5 sec ON @ 70° C	±(2% +0.05Ω)
Resistance to Pulse1	20,000 cycles. See circuit for testconditions	±5%
Thermal Shock	MIL-STD-202, Method 107	±(2% ±0.05Ω)
Moisture Resistance	1000 hrs @ 40°C ,90 - 95% RH	±5%
Terminals	Pb-free solder-coated axial	
Coating	Silicone ceramic	
Derating	Linear from 100% @ +70°C to0% @ +200°C	
Operating Temp.Range	-40°C to +220°C	
Tolerance	±10% standard	
Power Rating	Based on 70°C free air rating	
Temperature Coefficient	-1300 ±300ppm/° C.	
Pulse Tolerance,100 pulses	HVY 1W: 1240V @ 52μF, 40J/ 35 sec.	
	HVY 2W: 1640V @ 52μF,70J/35 sec.	
	1See figures: 14KV and 20KV values used in circuit as shown; full voltage not applied directly to resistor. 