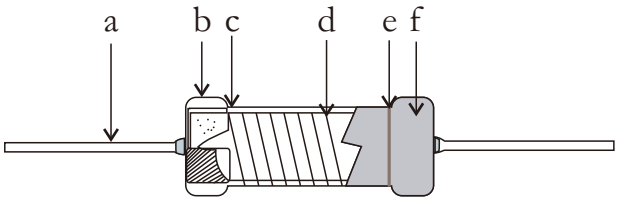
HVS Wire Wound Resistor (High Pulse Voltage)

Features

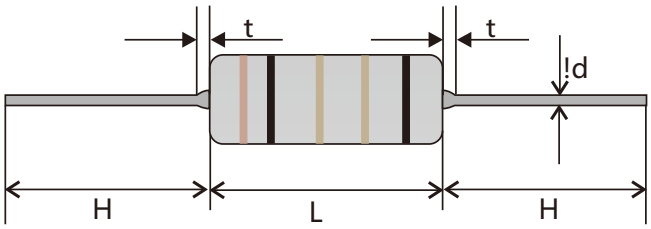
Ⅰ Flameproof and insulating coating designed to assure safe usage by special non-flammable silicon-base.(Eqyuvakebt to UL94V-0).
Ⅱ Good heat-durability, low temperature coefficient , low noise, high overload power.
Ⅲ Stable long service life.
Ⅳ Products meet Eu-RoHS.
Response to pulsed high voltage circuit, with excellent performance

Construction



a	Lead wire
b	Cap
c	Ceramic base
d	Wire wound
e	Marking or color code
f	Insulation coat

Dimensions,Applications And Ratings

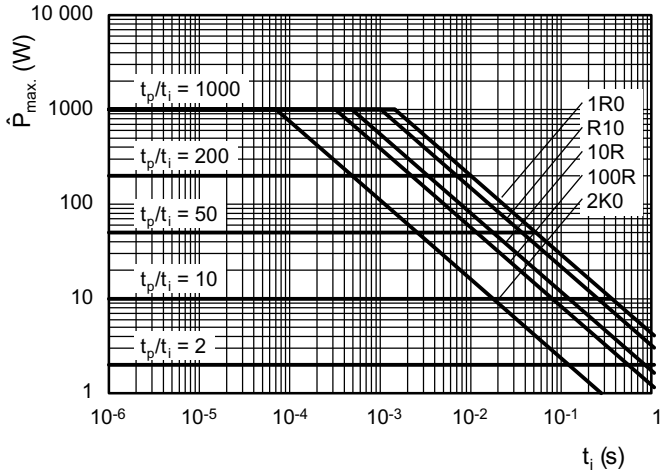


Type	Power		Resistance Range (Ω)	Dimensions(mm)					Max working Voltage	Dielectric with standing	Pulse with standing voltage	T.C.R
	Standard	Small volume		L±1.0	t max	D±0.5	H±3.0	d±0.05				
HVS14	1/4W	1/2WS	0.1~2KΩ	6.5	1.0	2.5	28.0	0.60	√PR	300V	2KV	⩾ 20Ω ± 300PPM/℃
HVS12	1/2W	1WS	0.1~3KΩ	9.0	1.0	3.5	28.0	0.60	√PR	350V	4KV	
HVS01	1W	2WS	0.1~5KΩ	11.0	2.5	4.0	28.0	0.70	√PR	500V	5KV	10Ω~20Ω ± 100PPM/℃
HVS02	2W	3WS	0.1~8KΩ	15.0	2.5	5.0	28.0	0.70	√PR		6KV	
HVS03	3W	4WS	0.1~8KΩ	15.0	2.5	5.0	28.0	0.70	√PR		8KV	1Ω~9.9Ω ± 150PPM/℃
HVS04	4W	5WS	0.1~10KΩ	17.0	2.5	6.0	28.0	0.70	√PR		8KV	
HVS05	5W	6WS	0.1~10KΩ	25.0	2.5	8.5	38.0	0.75	√PR		9KV	0.05Ω~0.099Ω ±350PPM/℃
HVS07	7W	8WS	0.1~15KΩ	30.0	2.5	8.5	38.0	0.75	√PR		10KV	0.01Ω~0.049Ω ± 600PPM/℃
HVS08	8W	9WS	0.1~15KΩ	40.0	2.5	8.5	38.0	0.75	√PR		11KV	
HVS09	9W	10WS	0.1~15KΩ	53.0	2.5	8.5	38.0	0.75	√PR		11KV	

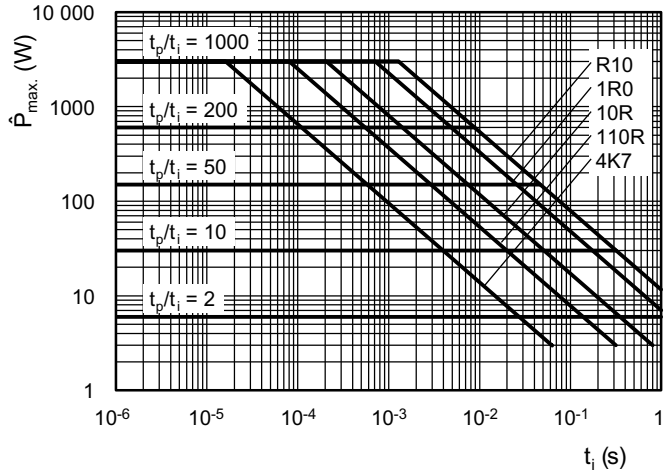
Note: Special products please contact with kw@kwxcom.com

Pulse Voltage Overload Test

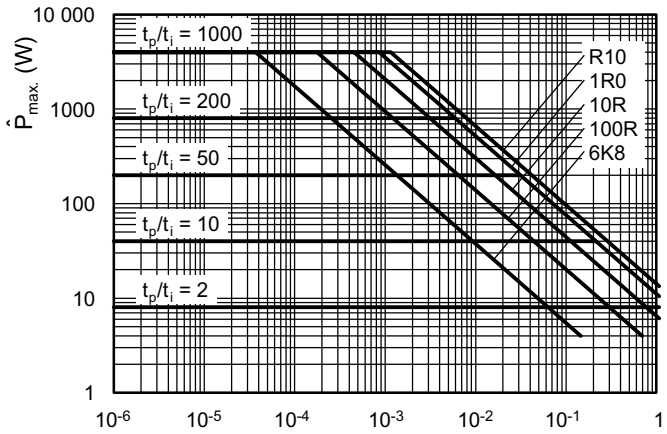
I PULSE DIAGRAMS



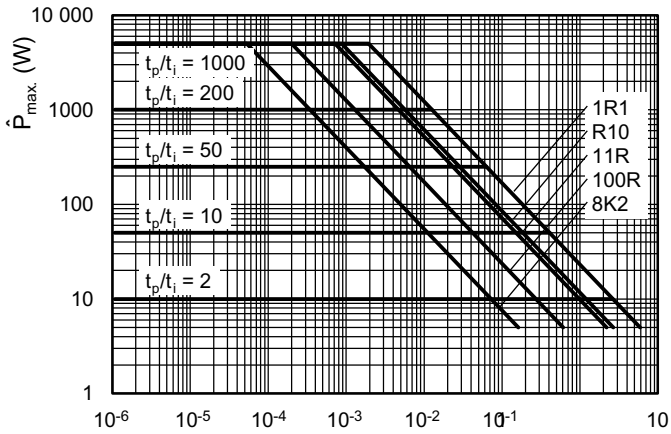
HVS01 Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)



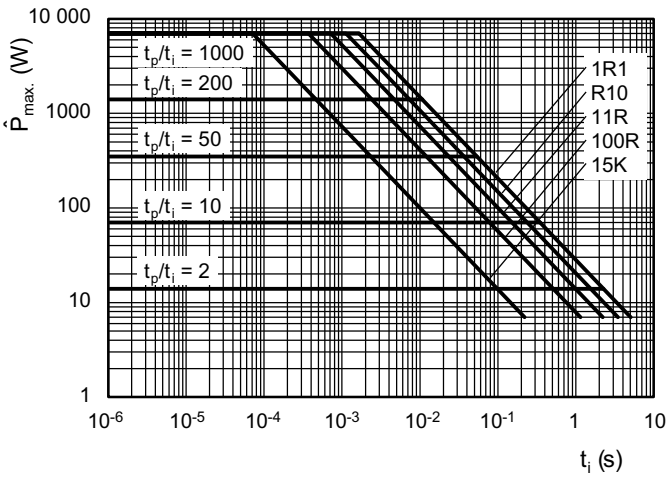
HVS03 Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)



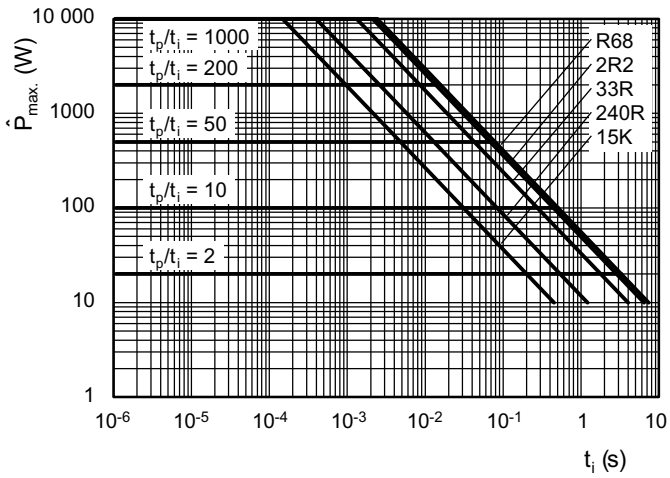
HVS04 Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)



HVS05 Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)

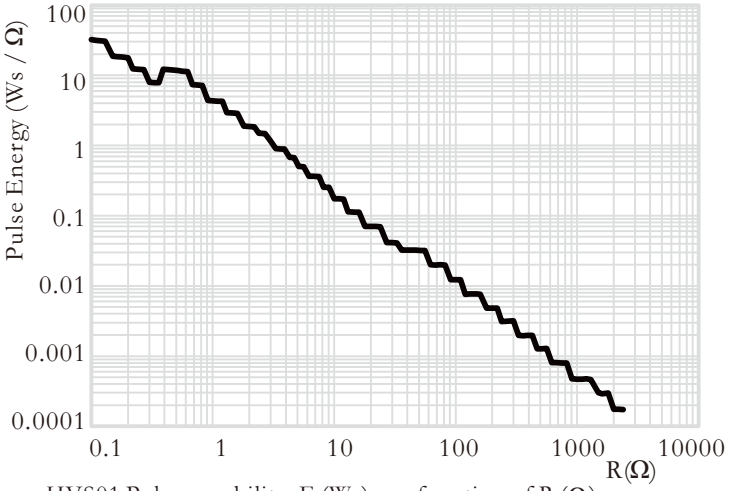


HVS07Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)

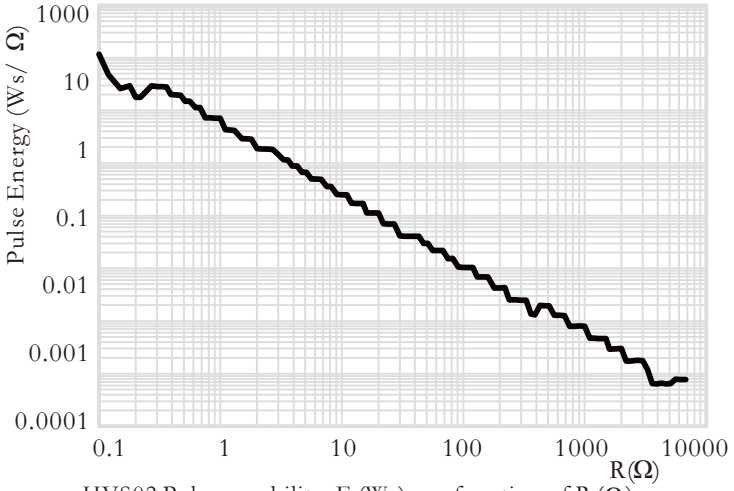


HVS09Pulse on a regular basis; max. permissible peak pulse power (max.) as a function of pulse duration (ti)

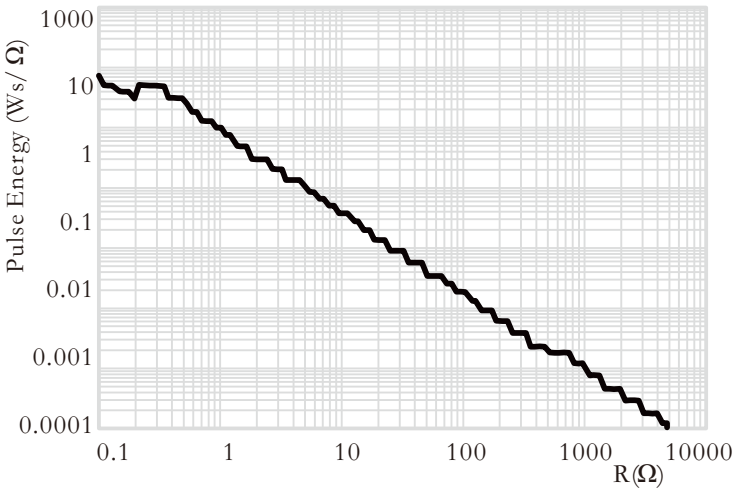
Ⅱ PULSE DIAGRAMS



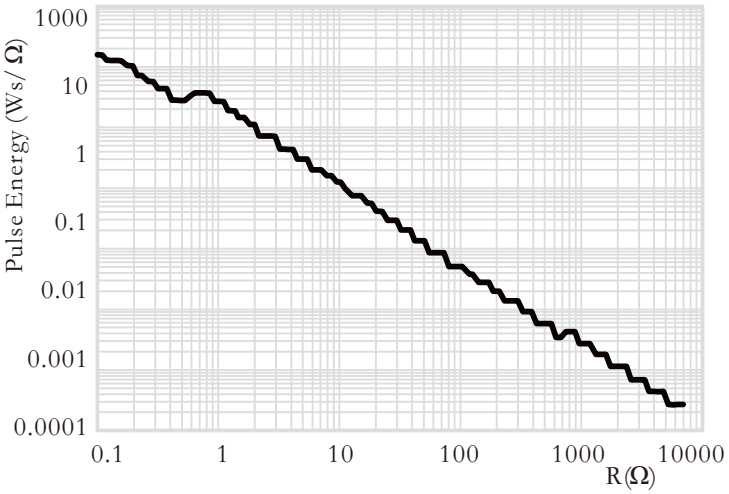
HVS01 Pulse capability; E (Ws) as a function of R (Ω)



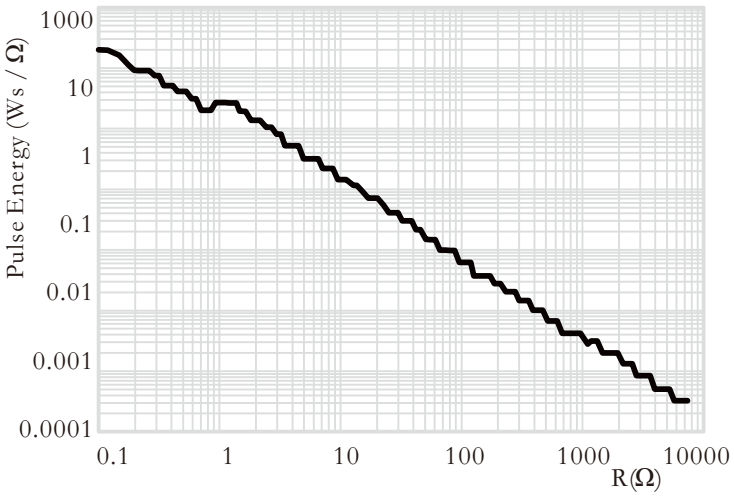
HVS02 Pulse capability; E (Ws) as a function of R (Ω)



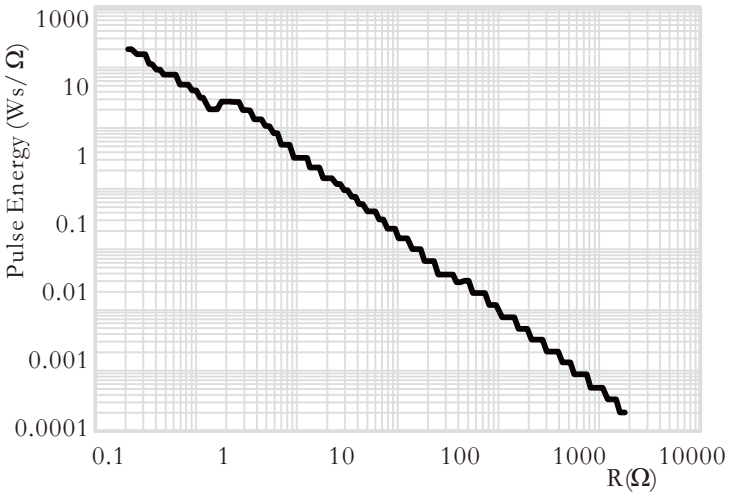
HVS03 Pulse capability; E (Ws) as a function of R (Ω)



HVS04 Pulse capability; E (Ws) as a function of R (Ω)



HVS07 Pulse capability; E (Ws) as a function of R (Ω)



HVS09 Pulse capability; E (Ws) as a function of R (Ω)

＊Please consult us for more pulse power

Ordering Information

Example:

HVS	14	0.5W	J	R100
(1)	(2)	(2)	(3)	(4)
Series Name	Code	Power Rating	Resistance Tolerance	Resistance

(1)Type:HVS SERIES

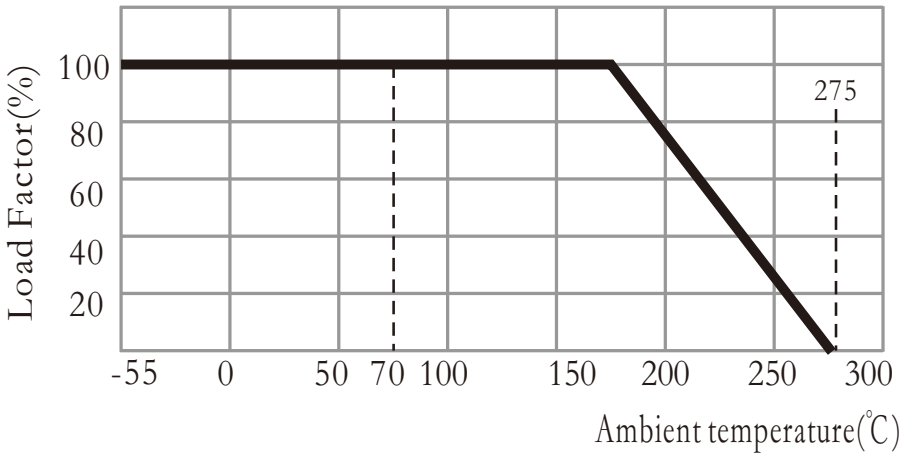
(2)Code:14=1/4W or1/2W、1/2= 1 /2W or1WS 、1= 1W or 2WS、 2=2W or3WS、 、 、 、

(3)Power Rating: 0.5W、 1WS、1W、2WS、2W、3WS、 、 、 、 、 、 、9W

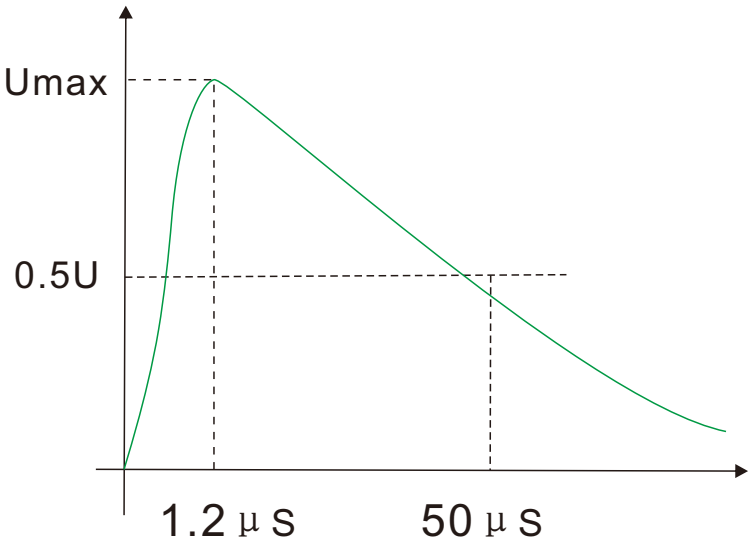
(4)Tolerance: J= 5 ± %

(5) Resistance Value:R100=0.1R、 1R00=1R、 10R0=10R、 100R0=100R

Derating Curve

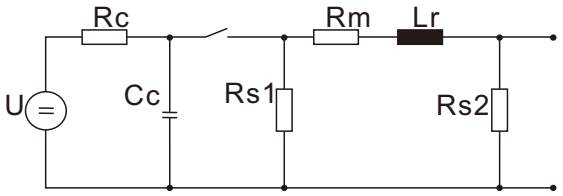


Surge Waveform(1.2/50 μ S)



Performance

Test Items	Performance Requirements	Test Methods(JIS C 5201-1)
Resistance	Within specified tolerance	Measuring points are 10mm from the end cap
T.C.R.	Within specified T.C.R	Room temperature+100℃
Short time overload	±(2%R+0.1Ω)	6.25 times the rated power for 5 seconds
Load life	±(5%R+0.1Ω)	Rated voltage at 70℃ for 1,000 hours 1.5hr ON/0.5hr OFF Cycles
Load life in humidity	±(5%R+0.1Ω)	Rated voltage at 40℃,95%RH for 1,000 hours
Moisture resistance	±(2%R+0.1Ω)	40℃,95%RH for 240 hours
Temperature cycle	±(2%R+0.1Ω)	5 cycles for -25℃(30min);room temp.(30min) ~ 85℃(30min)room temp.(30min)
Resistance to soldering heat	±(2%R+0.1Ω)	260℃ ± 5℃ for 10 seconds 350℃ ± 10℃ for 3.5 seconds
Insulation resistance	>1,000MΩ	500V insulation test 1min.
Surge Immunity Test:	±(5% + 0.05Ω) Max.	Refer to IEC61000-4-5



1.2μsec rising time and 50μsec discharge;
every 1 minute for 10 cycle

Max Surge Voltage	
1/2W 1WS	4KV
1W 2WS	5KV
2W 3WS	6KV
3W 5WS	8KV
5W 7WS	9KV
7W 8WS	10KV
8W 9WS	11KV
9W 10WS	12KV

Storage Temperature:25 ± 3℃;Humidity60%RH ± 10%