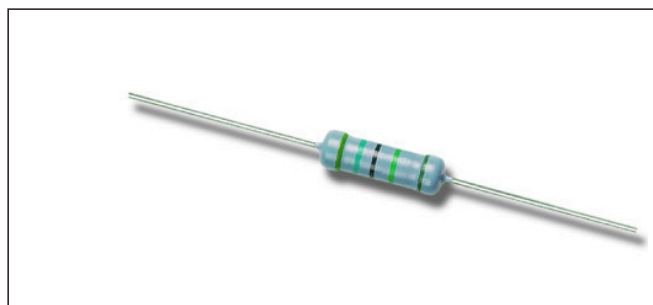
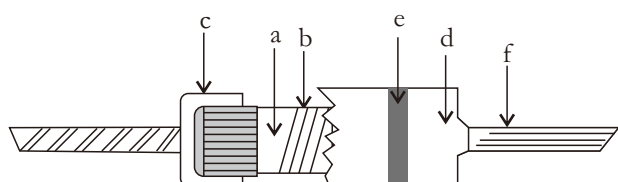




● Features

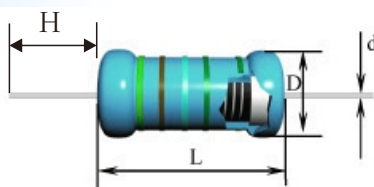
- I Low temperature coefficient, high precision, and good high frequency performance.
- II Operating ambient temperature:-55℃ ~ +155℃
- III Film the metal in vacuum, the surface coating is blue resin with the good waterproof.
- IV Resistance tolerance: $\pm 1\%$.

● Construction



a	High AL ₂ O ₃
b	High Stability Electric Conduction Film
c	Iron Cap
d	Epoxy Resin Coating
e	Color Ring
f	Tinned copper lead wire

● Dimensions, Applications And Ratings



Type	Power	Resistance Range (Ω)	Dimensions(mm)				Max. working voltage	Max. overload voltage	Max. Pulse voltage	Max. Insulation voltage
			L	D	$d \pm 0.05$	$H \pm 30$				
MFS-50	0.5W	$0.1\Omega \sim 10M$	3.4 ± 0.3	1.9 ± 0.2	0.45	24.0	200V	400V	500V	300V
MFS-100	1W	$1\Omega \sim 10M$	6.3 ± 0.5	2.4 ± 0.2	0.50	24.0	350V	600V	700V	500V
MFS-200	2W	$1\Omega \sim 10M$	9.0 ± 0.5	3.9 ± 0.3	0.55	24.0	500V	700V	1000V	500V
MFS-3WS	3WS	$1\Omega \sim 10M$	11.5 ± 1.0	4.5 ± 0.5	0.75	33.0	750V	750V	1500V	750V
MFS-300	3W	$1\Omega \sim 10M$	15.5 ± 1.0	5.0 ± 0.5	0.75	33.0	750V	750V	1500V	750V

● Ordering Information

Example:

MFS	01B	F	100K0
(1)	(2)	(3)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance

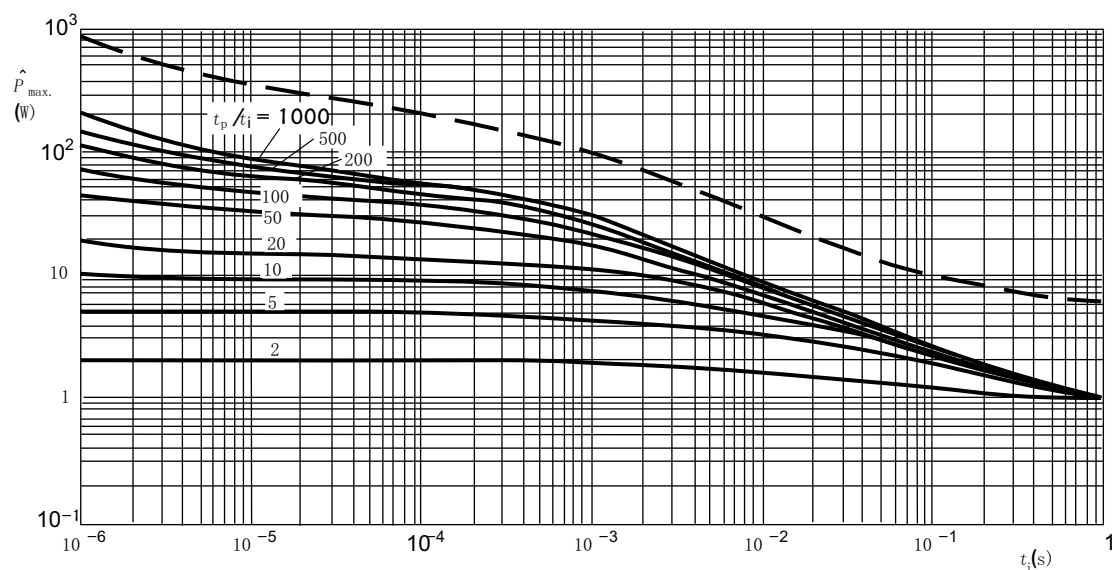
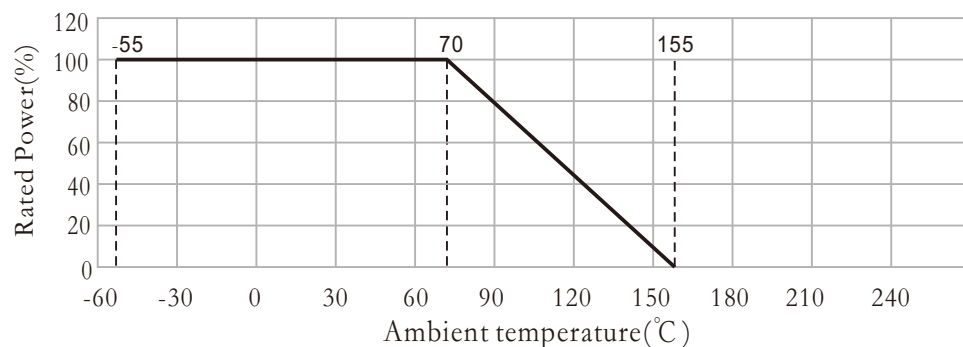
(1)Type: MFS SERIES

(2)Power Rating: 50=0.5W、100=1W、200=2W....

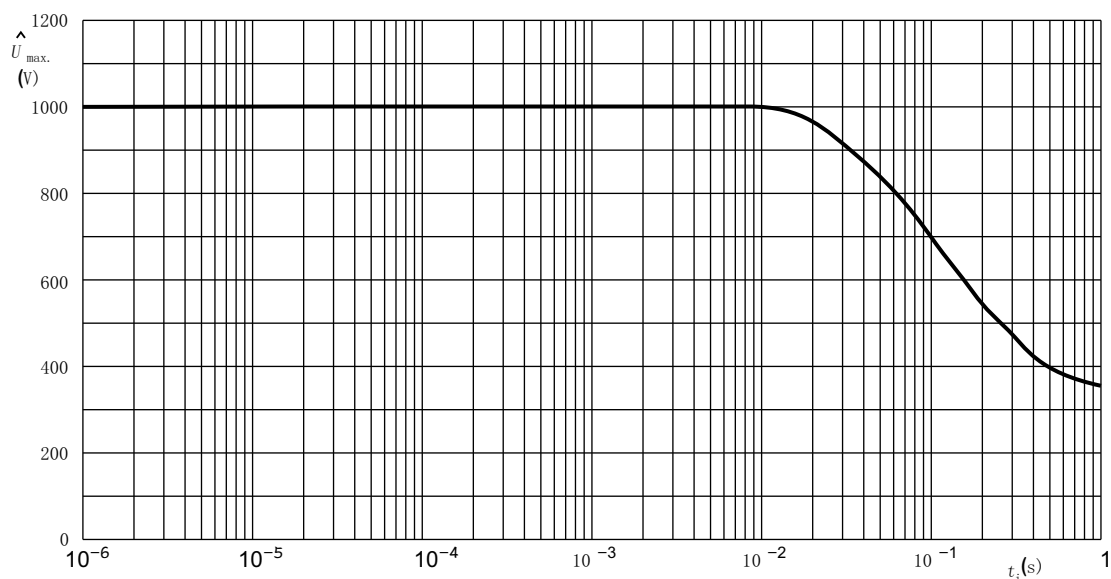
(3)Tolerance:F= $\pm 1\%$ 、J= $\pm 5\%$

(4)Resistance Value:0R100=0.1 Ω ,0R220=0.22 Ω ,10R00=10 Ω ,10K00=10K Ω ,1M000=1M Ω

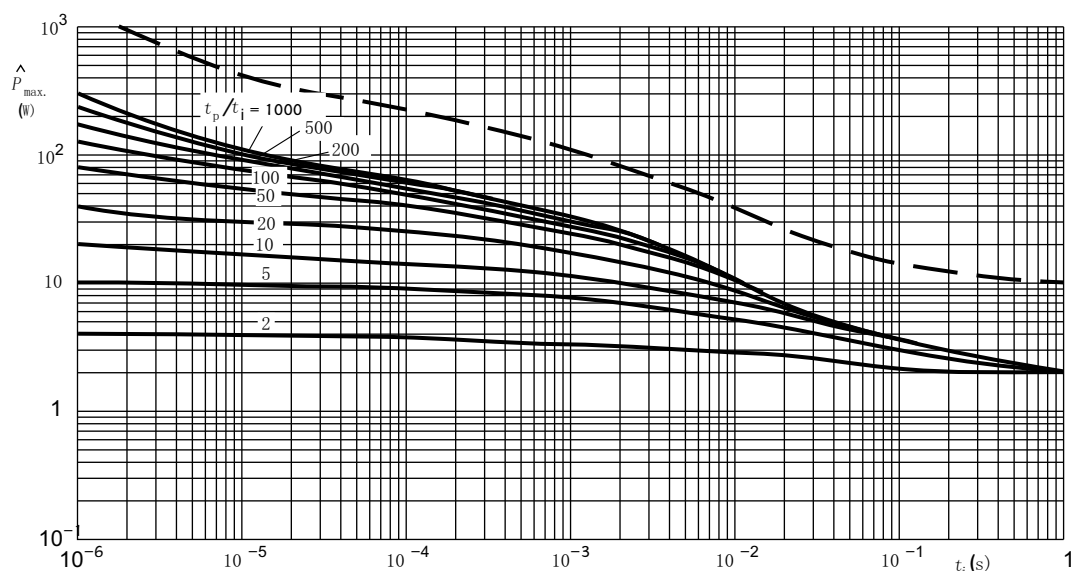
Derating Curve



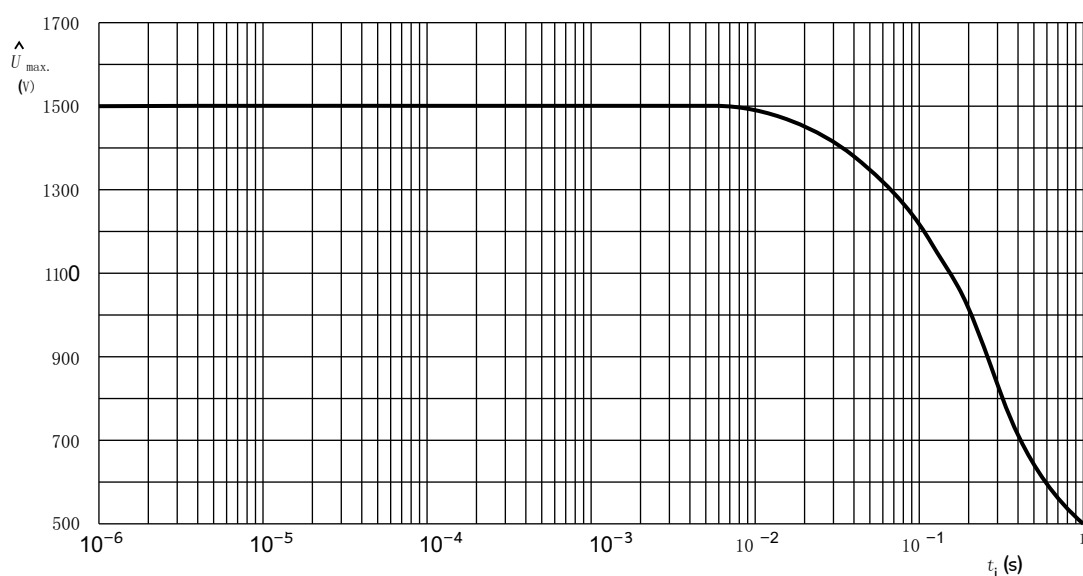
MFS100 Pulse on a regular basis; maximum permissible peak pulse power ($\hat{P}_{max}$) as a function of pulse duration (t_i)



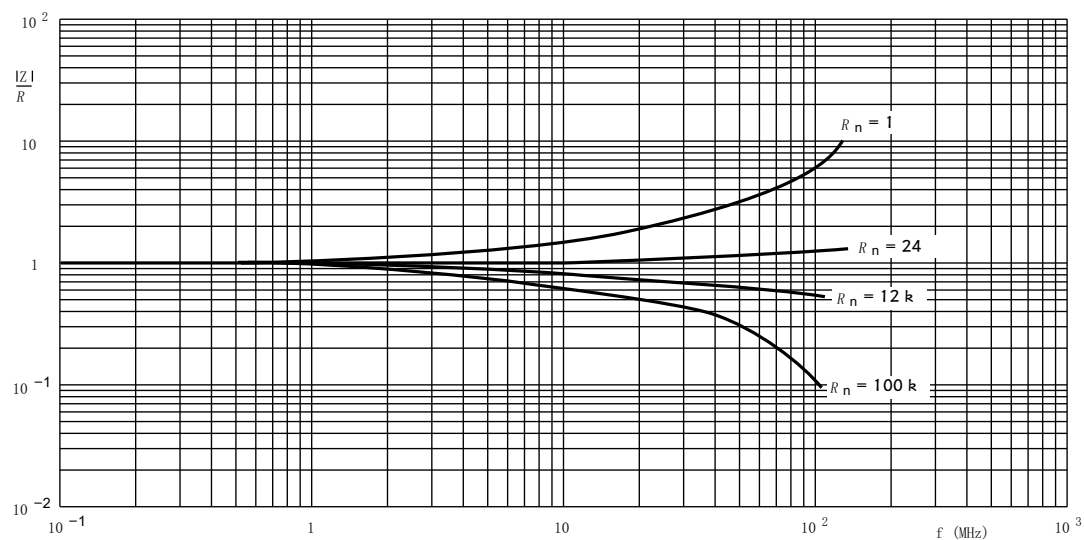
MFS100 Pulse on a regular basis; maximum permissible peak pulse voltage ($\hat{U}_{max}$) as a function of pulse duration (t_i)



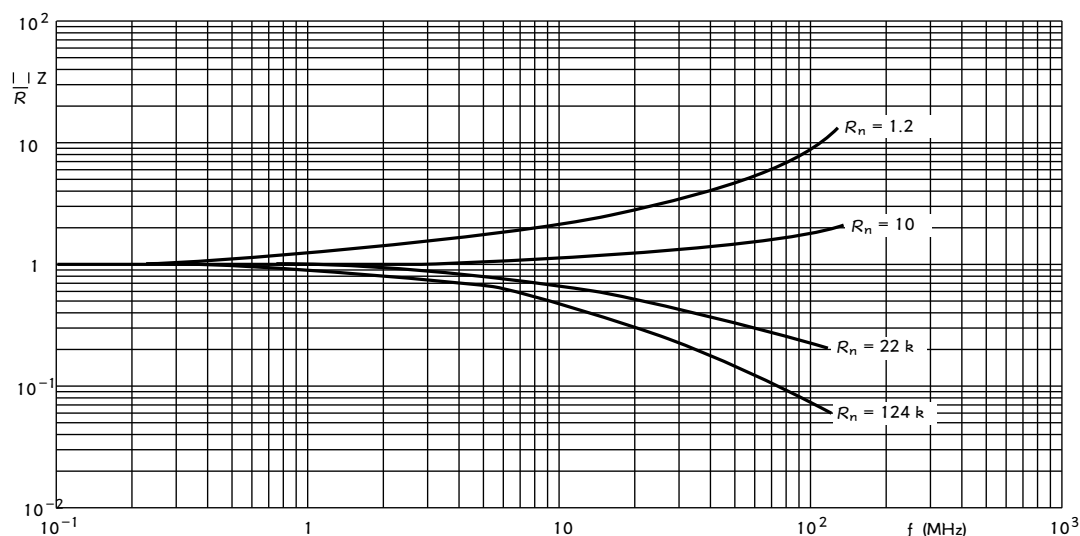
MFS200 Pulse on a regular basis; maximum permissible peak pulse power ($\hat{P}_{max}$) as a function of pulse duration (t_i)



MFS200 Pulse on a regular basis; maximum permissible peak pulse voltage ($\hat{U}_{max}$) as a function of pulse duration (t_i)



MFS100 Impedance as a function of applied frequency



MFS200 Impedance as a function of applied frequency

● Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Temperature coefficient	$\pm 50\text{ppm}/^{\circ}\text{C}$	Test resistance value at normal temperature and normal temperature added 100°C , calculate 70°C resistance value change rate.
Short time overload	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$	$2.5 \times$ rated power or Max. overload voltage(get the lower) for 5seconds.
Pulse overload	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	At $4 \times$ rated power or Max. pulse overload voltage(get the lower)cycle 10000 $\pm$ 200 times(1second on 25 seconds off)
Resistance to soldering heat	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$	Immerge into the $350 \pm 10^{\circ}\text{C}$ tin stove for 2~3 seconds
Solderability	Tth soldering area is over 95%	Immerge into the $245 \pm 3^{\circ}\text{C}$ tin stove for 2~3 seconds
Temperature cycle	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$	At -55°C for 30min, then at $+25^{\circ}\text{C}$ for 10~15min, then at $+125^{\circ}\text{C}$ for 30min, then at $+25^{\circ}\text{C}$ for 10~5, min, total 5cycles.
Load life in humidity	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours (1.5hours on and half-hour off) at the $40 \pm 2^{\circ}\text{C}$ and 90~95% relative humidity.
Load life in heat	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	Overload rated voltage or Max.working voltage(get the lower for)1000 hours(1.5hours on and half-hour off) at the $70 \pm 2^{\circ}\text{C}$.