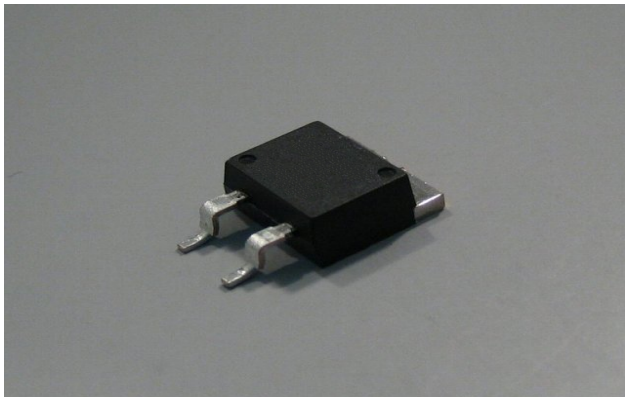
Tateyama Kagaku Industries Co.,Ltd.

35W HIGH POWER RESISTORS

■ TO263 SURFACE MOUNT
HPR3F



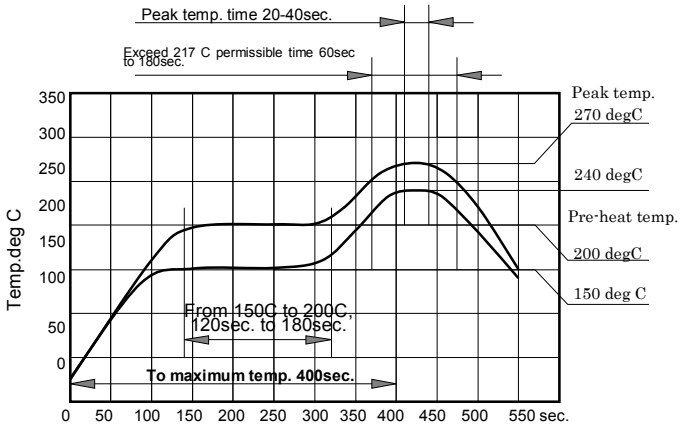
Features :

- 35W high power resistors in TO263(D2-PAK) style.
- Surface mount mold package with matte tin plated flange.
- Heat extraction structure with insulated metal flange.
- 20mΩ to 51KΩ wide resistance range.

Applications:

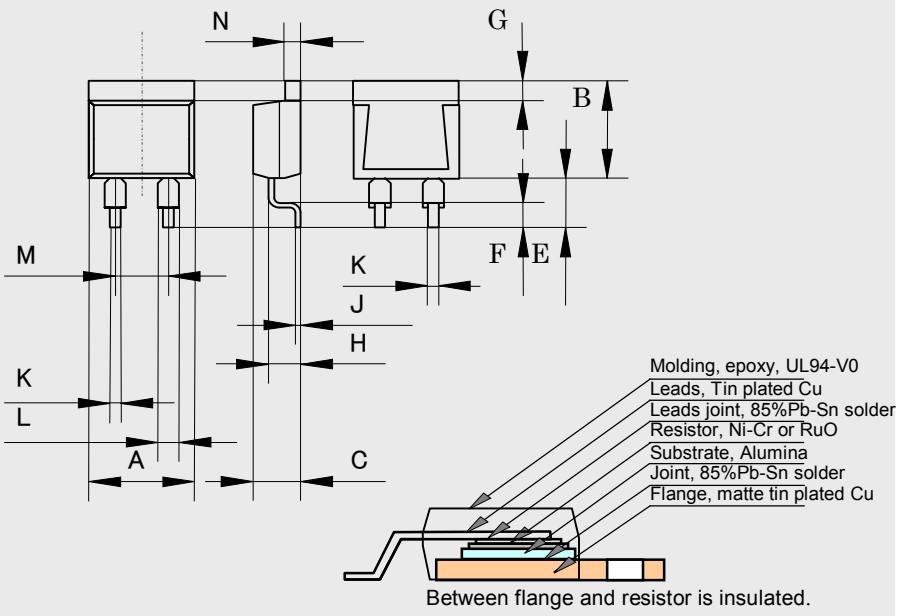
Non-inductive design suits high frequency applications and high speed pulse circuits.

- UPS, power unit of machines, motor control, drive circuits, automotive, measurements, computers and high frequency electronics.



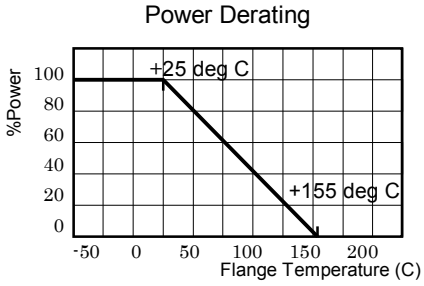
Structure and Dimensions (mm) :

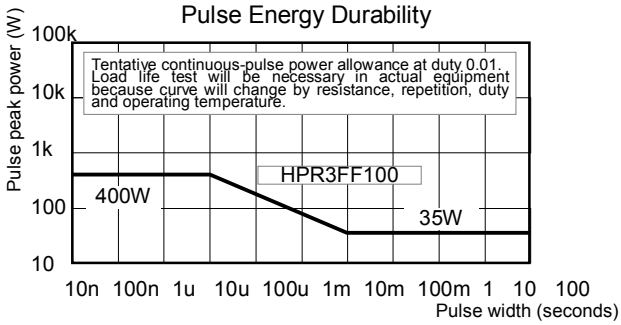
HPR3F		
	mm	+/-mm
A	10.1	+/-0.2
B	10.3	+/-0.2
C	4.5	+/-0.2
D	-	-
E	5.0	+/-1.0
F	2.5	+/-0.5
G	2.2	+/-0.2
H	2.75	+/-0.2
J	0.5	+/-0.05
K	0.75	+/-0.05
L	1.5	+/-0.05
M	5.08	+/-0.10
N	1.5	+/-0.05



Specifications

Rating Power	35 W			-55 deg C to 25 deg C flange temperature
Rating Power	1 W			Attached on simple foot print.
Heat Resistance	3.3 deg C/W			Resistor hot spot to flange
Resistance Range	0.022-0.068Ω	0.1-9.1Ω	10-51KΩ	Note 2
Nominal	E6	E24		Include 2.5, 4.0, 5.0, 8.0
TCR(ppm/deg C)	±250	±100	±50	Note 3.
Tolerance	±5%(J)	±5%(J)	±1% (F) 5% (J)	-
Capacitance	1.44pF			Equivalent parallel capacitance.
Inductance	8.38nH			Equivalent series inductance
Operation Temp.	-55 deg C to+155 deg C			-
Operating Volt.	Either 500V or $\sqrt{P \cdot R}$			P: rating power, R: resistance
Withstanding Volt.	2000 VAC			Terminal and flange, 60 seconds. 1mA
Load Life	+/- 1.0 %			25 deg C, 90 min.ON, 30 min. OFF, 1000h.
Humidity	+/- 1.0 %			40 deg C, 90-95%RH, DC 0.1W, 1000 hours.
Temp. Cycle	+/- 0.25 %			-55 deg C,30 min.,+155 deg C,30 min., 5cyc
Soldering Heat	+/- 0.1 %			350+/-5 deg C, 3 seconds,
Lead Solder ability	Over 95% of surface			230+/-5 deg C, 3 seconds.
Insulation Resistance	Over 1,000 Meg Ω			Between terminals and tab.
Vibration	+/- 0.25 %			IEC60068-2-6, see note 4
Flammability	UL94-V0			-
Weight	1.5 grams			-





Ordering information

Model	Tolerance	Resistance Value	Packaging
HPR3F	F	100	R
HPR3F	J(5%)	R022-513	R (Tape & Reel)
	F(1%)		

Note:

(1) Flange insulation is not necessary between flange and heat-sink, flange and resistor is separated by alumina substrate.
(2) Resistance measurement shall be made at terminal foot portion.
(3) TCR of low resistance will be increased as 300ppm/0.02Ω, 200ppm/0.05Ω, 140ppm/0.1Ω and 80ppm/0.2Ω typically. Testing point is at 5.27mm from bottom of molding of terminals.
(4) Test method is IEC60068-2-6, and specification is sine sweep wave form, 100Hz-2000Hz, 10 cycles, amplitude 0.75mm or 100m/s2, 90minutes. Direction x-y z, Amplitude 0.75mm will be applied under break point Frequency (about 60Hz) and 100m/ s2 over break point
(5) Standard packaging is tape reel, a tape reel contains 500pcs. When small quantity, stick packaging will be used, the stick is made by RoHS PS/PE which contains 50pcs /stick.