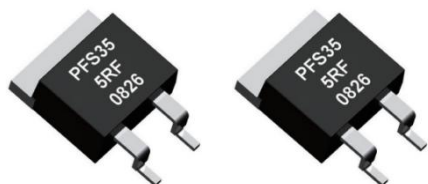


TFS35 Series

TO220 High Power Thick Film SMD Resistors

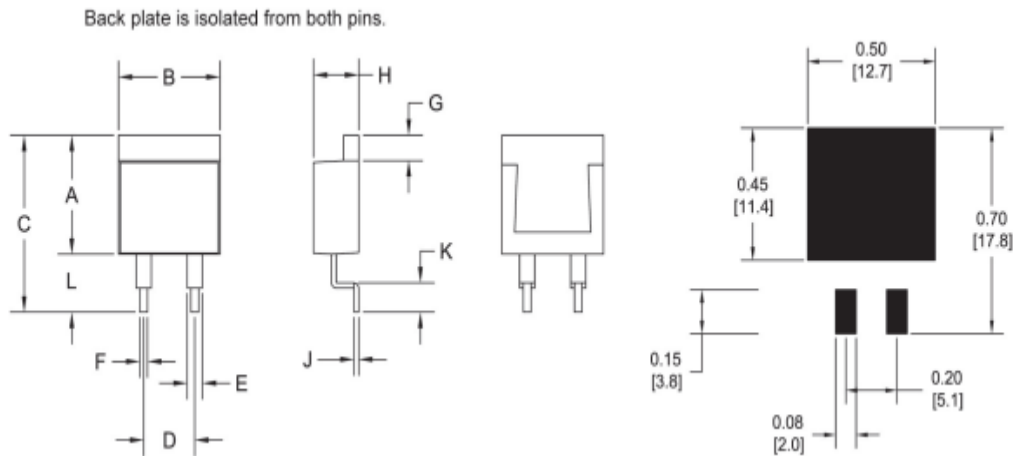


- D2PAK Housing
- Resistances From 0.01Ohm to 500kOhms
- 35 Watts At 25°C Case Temperature On Heat Sink
- Resistance Tolerances to $\pm 1\%$
- TCR to $\pm 50\text{ppm}/^\circ\text{C}$
- Load Stability to 1%
- Low Ohm Values For Current Sense Applications
- Exceptional Pulse Performance
- Solder Reflow Secure At 250°C / 30s
- Electrically Isolated From Back Plate
- Low Inductance - 0.1 μH Maximum
- RoHS Compliant
- Flammability UL94V-0

■ SPECIFICATIONS

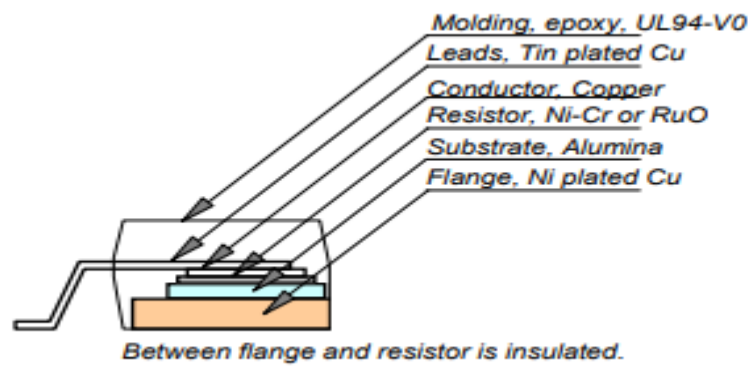
Type	TFS35		
Terminals	2		
Terminal Finish	Tin Plated Copper		
Power Rating (with heat sink)	35 W (2W on Simple solder Pad)		
Thermal Resistance Rthj-c	3.4℃/W		
Resistance Range	0.01 to 0.099Ohms	0.1 to 9.90Ohms	10 to 100KOhms
Tolerances (others upon request)	5%	1% / 5%	1%
Temperature Coefficient	±250 ppm/℃	±100 ppm/℃	±50 ppm/℃
Operating Temperature	-55℃ to 175℃		
Max Operating Voltage	500VDC		
Inductance	0.1uH		
Voltage Proof	2.0kVDC		
Insulation Resistance	Over 4,000 Mega ohm		
Dielectric strength	2,000VDC		
Load Life	±1%	90 min ON, 30 min OFF, 1000hrs @ 25℃	
Humidity	±1%	90-95% RH, 0.1W, 1000 hrs @ 40℃	
Temperature Cycle	±0.25%	-55℃ for 30 min, +155℃ for 30 min, 5cycles	
Solder Heat	±0.1%	350℃ ±5℃ for 3 seconds	
Vibration	±0.25%	5G 10~2Khz 20min / 12cycles	
Flammability	UL94V-0		
Reflow soldering	250℃ / 30s / 3cycles (sufficient cooling bet ween each cycles)		
Moisture Sensitivity Level	MSL-1		
Mass	1.5g		

■ DIMENSIONS

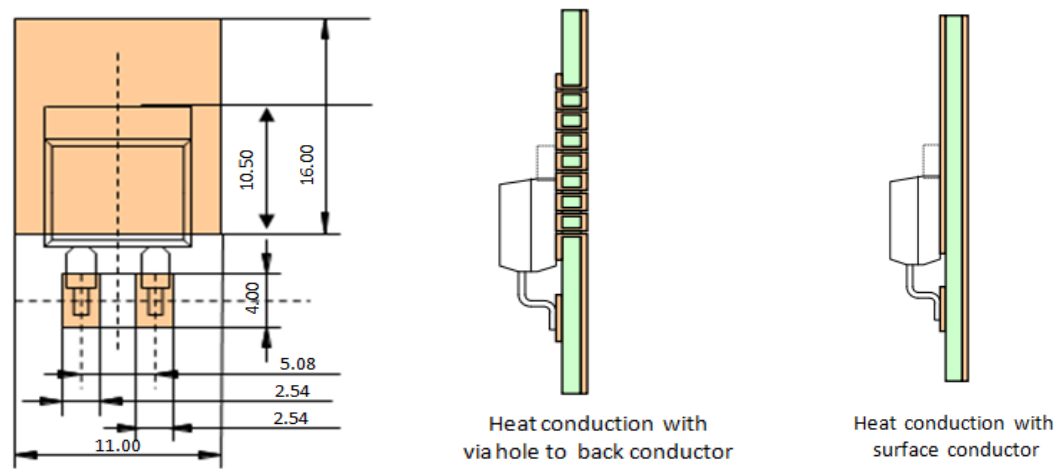


Dimension	mm	Tol (±mm)	inches	Tol (±inches)
A	10.3	0.2	0.405	0.008
B	10.1	0.2	0.400	0.008
C	15.3	1.2	0.602	0.047
D	5.08	0.1	0.200	0.004
E	1.5	0.05	0.060	0.002
F	0.75	0.05	0.030	0.002
G	2.2	0.2	0.087	0.008
H	4.5	0.2	0.177	0.008
J	0.5	0.05	0.020	0.002
K	2.5	0.5	0.10	0.02
L	5.0	1.0	0.20	0.04

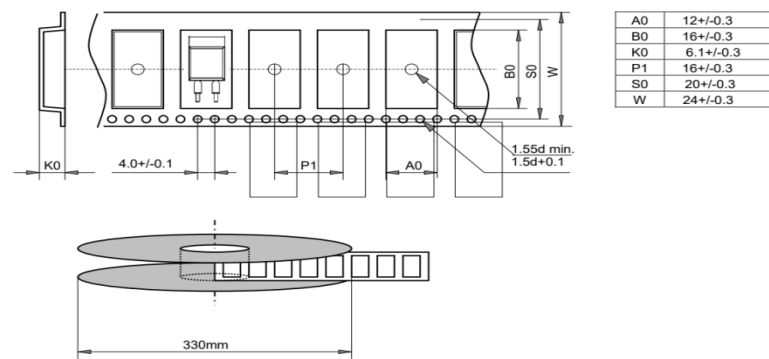
Structure and Materials



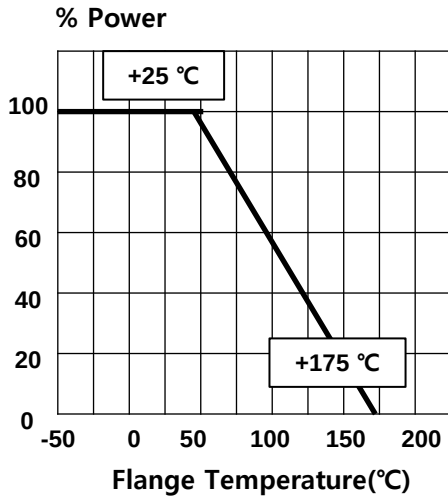
Applications .TFS35



Tape Reel ,TPFS35 (500pcs/reel)



■ DERATING CURVES



Power Rating Notes-

The TFS35 Series Resistors must be attached to a suitable heatsink.

The maximum internal resistor temperature is 175°C

To specify an appropriate heatsink use the following formula

$$R_{\theta H} = \frac{T_{MAX} - (P * R_{\theta R}) - T_A}{P}$$

Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (K/W)

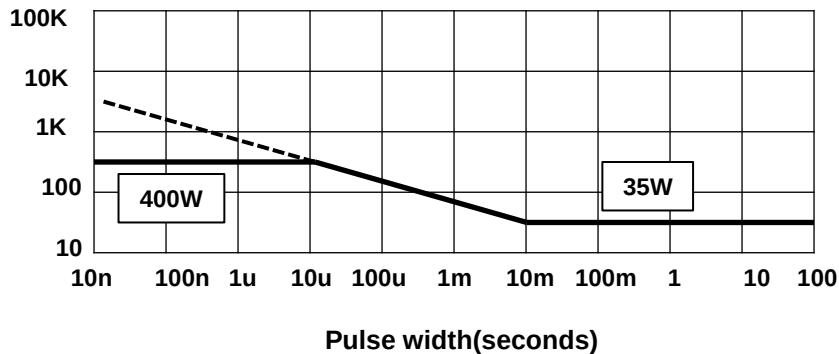
$R_{\theta R}$ = Thermal Resistance of Resistor (K/W)

T_{MAX} = Maximum Temperature of Resistor

T_A = Ambient Temperature of Heatsink (°C)

P = Power Through Resistor (W)

Pulse Peak Power(W)



Tentative continuous-pulse allowance at duty 0.01. Load life test will be necessary in actual equipment, because curve may be changed by resistance, repetition, duty and perating temperature

■ HOW TO ORDER

TFS35	10KΩ	±1%	NOTE
TYPE	RESISTANCE	TOLERANCE ±1% ±5%	TAPE 500Pcs Packaging

www.resistors.co.kr

Tel +82-31-764-8216