

Cement Resistor Horizontal-Pin Type

SQK Series

MERITEK

FEATURE

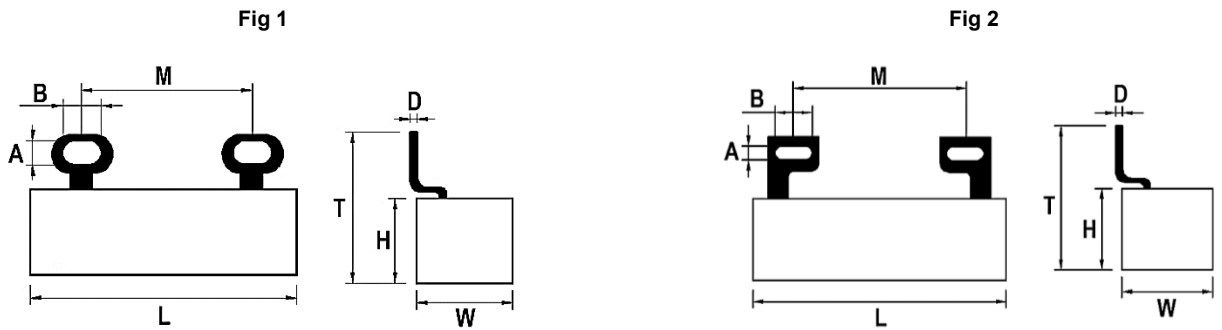
- High Load, Heat-Sink Performance, Non-Flame
- Stable Performance of High Voltage
- Application: Power Supply, Industrial System, VFD Control, CNC Equipments



ELECTRICAL CHARACTERISTICS

Series	Rated Power at 70°C (W)	Resistance Range (Ω)	Tolerance (%)	Max Working Voltage (V)	Max Overload Voltage (V)	Insulation Voltage (V)	TCR (PPM/°C)	Operating Temperature Range (°C)
SQK5W	5	10~500K	J(±5) K(±10)	250	350	1000	±100 ±250 ±350 ±500	-55~+275
SQK10W	10			250	350			
SQK15W	15			350	500			
SQK20W	20			500	750			
SQK25W	25			500	750	1500		
SQK30W	30			750	1000			
SQK50W	50			750	1000			

DIMENSIONS



Unit: mm

Power Rating	L ±1.0	W ±0.5	H ±2.0	T ±2.0	D ±0.2	M ±1.0	A ±0.5	B ±0.5	Terminal Type
5W	48	9.5	9.5	23	0.6	32	6	8	Fig.1-Round tab (Blank) Fig.2-Square Tab (S)
10W	48	12.5	12.5	26					
15W	48	12.5	12.5	26					
20W	63	12.5	12.5	26					
25W	63	12.5	12.5	26					
30W	75	19.5	19.5	33					
50W	90	19.5	19.5	33					

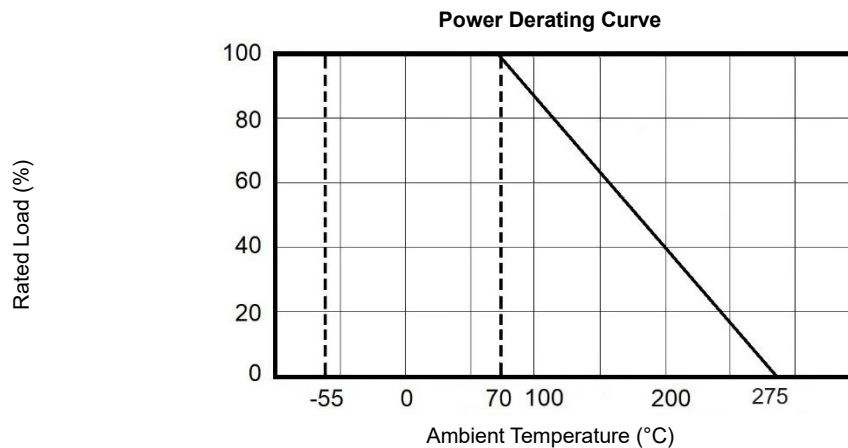
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CHARACTERISTIC CURVES



RELIABILITY TEST CONDITION AND REQUIREMENT – Refer to IEC 60115-1

Test	Condition	Requirement
Short Time Overload	$\sqrt{10 * W * R}$ or Rated Voltage whichever is smaller for 5 seconds. Then removing the voltage and place the resistors to the normal condition for 30 minutes	$\pm(2.0\% + 0.05\Omega)$
Temperature Coefficient Resistance (T.C.R.)	$T.C (ppm/^{\circ}C) = [(R2 - R1) / R1] \times [1 + (T2 - T1)] \times 10^6$	$\pm 100ppm/^{\circ}C$
Voltage Proof	Applying Rated Voltage, $I \leq 1mA$ for 60 seconds	$\pm(1.0\% + 0.05\Omega)$
Insulation Resistance	In V-Block for DC500V megger	$> 100M\Omega$
Endurance	70°C at RCWV for 1000 hrs, (1.5 hrs on, 0.5 hrs off)	$\pm(5.0\% + 0.05\Omega)$
Temperature Cycling	25±3°C /15min → 85±3°C /15min → 25±3°C /15min → -25±3°C /15min (1000 Hours)	$\pm(1.0\% + 0.05\Omega)$
Resistance to Soldering Heat	350±10°C for 3±0.5 Sec. Then remove the resistors and leaving them at room temp for one hour.	$\pm(1.0\% + 0.05\Omega)$
Solderability	245±5°C for 5sec.	95% Min Coverage
Terminal Strength	Direct load for 10 sec in the direction of the terminal leads.	Tensile: $\geq 20N$

Notes:

- Operating Temperature: -55°C ~ +275°C
- Rated Continuous Working Voltage (RCWV) = $\sqrt{Power.Rating * Resistance.Value}$

PART NUMBERING SYSTEM

SQK **25W** **15KJ** **K5** **S**
 (1) (2) (3) (4) (5)

No.	Item	Code	Description	
(1)	Meritek Series	SQK	Cement Resistor, Horizontal-Pin Type	
(2)	Power Rating	25W	25W	Power Rating at 70°C
(3)	Resistance	15KJ	15KΩ ±5%(J)	J: ±5% ,K: ±10%
(4)	TCR Code	K5	±500PPM/°C	K1: ±100 (PPM/°C), K25: ±250 (PPM/°C)
(4)	Internal Code	S	S: Square Tab Terminal	Blank: Round Tab Terminal