

[*structure pending patent approval]

Taiwan patent number: I637420

Applications

- Lighting devices
- Motor start-up protection
- Power supplies & Power adapters
- High rush current protection for power capacitor

Specifications Per

- IEC 60115-1, 60115-4

Features

- Worldwide patent pending
- Enhanced welded spot is reliable against surge
- Fast-acting fuse device for high-power applications
- Advanced combined anti- surge & fast-fuse structure
- Flameproof multi-layer coating equivalent to UL 94 V-0
- Flameproof feature equivalent to overload test UL 1412
- Thermal fuse to protect against over-heating in electronic products
- RoHS / REACH Compliant
- Reflow-soldering safe

DIMENSIONS

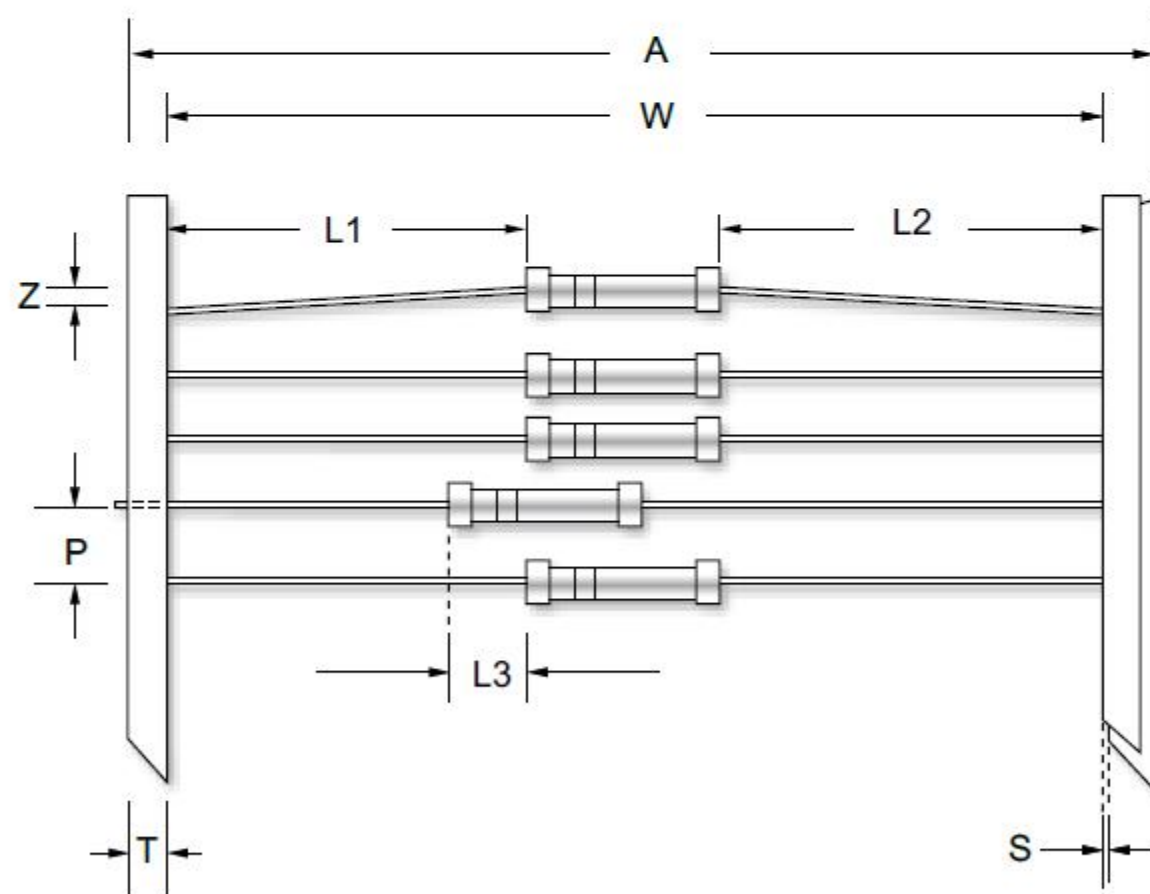
Type	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)
SWAT01	11.0 ± 1.0	4.5 ± 0.5	28 ± 3.0	0.7 ± 0.03
SWAT02	13.5 ± 1.0	5.0 ± 0.5	30 ± 3.0	0.8 ± 0.03
SWAT03	15.5 ± 1.0	5.5 ± 0.5	30 ± 3.0	0.8 ± 0.03

GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Maximum Working Voltage	Maximum Overload Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Values
SWAT01	1W	350V	600V	1 Ω	470Ω	± 5%	E-24
SWAT02	2W	350V	700V	1 Ω	470Ω	± 5%	E-24
SWAT03	3W	350V	700V	1 Ω	470Ω	± 5%	E-24

Special sizes, values, and specifications not listed available on special order.

TAPING/PACKING SPECIFICATIONS



Unit (mm)

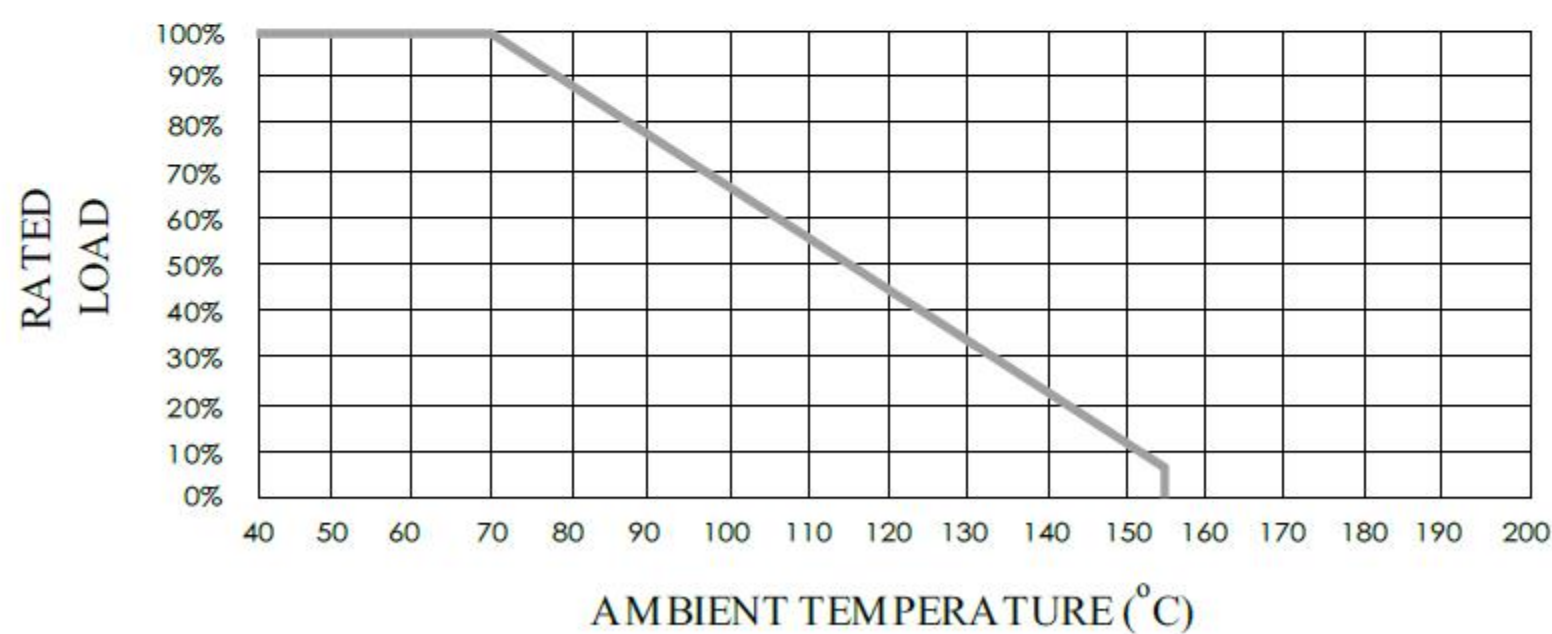
Type	A (Max.)	L1-L2 (Max.)	L3 (Max.)	P ±0.5	S (Max.)	T ±0.5	W ±1.5	Z (Max.)
SWAT01	65	±1.0	0.5	5.0	0.8	6.0	52.5	1.2
SWAT02	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2
SWAT03	76	±1.5	1.0	10.0	0.8	6.0	63.5	1.2

TECHNICAL SPECIFICATIONS

Characteristics		Limits	
Dielectric Withstanding Voltage, VAC or DC	SWAT01 / SWAT02	600	
	SWAT03	1000	
Temperature Coefficient, PPM / °C*		±100, ±300	
Operating Temperature Range, °C		-55~+200	
Insulation Resistance, MΩ		10 ⁴	
Fusing Characteristics	constant voltage	Interrupts in max. 5 seconds at 40 times rated power	
	thermal fuse	Interrupts in max. 5 minutes at 3.5 times rated amp at 265°C	

* Not applicable to all resistance values. Please check with us regarding the PPM of specific resistance value(s).

POWER DERATING CURVE



■ PART NUMBER

Example: SWAT01J10R0TKZTB1K0

SWAT01	J	10R0	TKZ	TB1K0
Type	Tolerance	Resistance	TCR	Packaging
	J (5%)	10Ω 4-character code containing - 3 significant digits 1 letter multiplier <u>OHM MULTIPLIER</u> R = 1 K = 10 ³ M = 10 ⁶ G = 10 ⁹	3-character code TKZ = Default Product Temperature Coefficient. Information of typical product temperature coefficient can be found in the Technical Summary section of the datasheet.*	5-character code TB = Tape Box (pieces per box) <u>SWAT01</u> 1K0 = 1,000 <u>SWAT02/SWAT03</u> 500 = 500

* For the availabilities of non-default temperature coefficient, please check with us.

■ PERFORMANCE SPECIFICATIONS

Characteristics	Test Conditions	Limits
Short Time Over Load	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±3%
Load Life In Humidity	IEC 60115-1 4.24 56 days rated (not over max. working voltage) load at (40±2)°C and (93±3)% relative humidity	±5%
Load Life	IEC 60115-1 4.25.1 Rated load (not over max. working voltage) 1,000 hours with 1.5 hours ON, 0.5 hours OFF, at (70±2)°C	±5%
Resistance To Soldering Heat	IEC 60115-1 4.18.2 Leads immersed till 3mm from the body in (260±5)°C solder for 10±1 seconds	±2.5%
Solderability	IEC 60115-1 4.17.2 Solder area covered after (235±3)°C/(2±0.2) seconds with flux applied	95% min. coverage
Vibration	IEC 60115 4.22 Six hours in each parallel and axial direction with a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz.	±2%
Thermal Endurance	IEC 60115-1 4.25.3 1000 hours at 125°C without load	±5%
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±5%
Surge Test	Surge voltage = $\sqrt{(9,000 PR)}$ DC P is power rating, R is resistance value, surge voltage is not more than listed at right. Surge spec = 1.2/50μs Period = 60 sec Number of surges = 10	SWAT01 9KV SWAT02 10KV SWAT03 12KV 5%