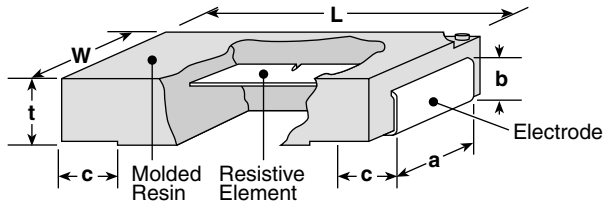


## features

- Surface mount type
- Flameproof UL94-V-0 molded polymer case
- Excellent dimension accuracy, mountability and shock resistance
- Suitable for flow, reflow and hand soldering
- Low profile type available (TSL)
- Marking: Black body color with white marking

## dimensions and construction



Size Code	Dimensions inches (mm)					
	L	W	t	a	b	c
SL1	.248±.012 (6.3±0.3)	.122±.008 (3.1±0.2)	.075±.008 (1.9±0.2)	.094±.008 (2.4±0.2)	.047±.012 (1.2±0.3)	.047±.012 (1.2±0.3)
SL2	.453±.012 (11.5±0.3)	.276±.008 (7.0±0.2)	.098±.008 (2.5±0.2)	.197±.008 (5.0±0.2)	.067±.02 (1.7±0.5)	.102±.02 (2.6±0.5)
SL3	.453±.012 (11.5±0.3)	.276±.008 (7.0±0.2)	.098±.008 (2.5±0.2)	.197±.008 (5.0±0.2)	.067±.02 (1.7±0.5)	.102±.02 (2.6±0.5)
TSL1	.248±.012 (6.3±0.3)	.122±.008 (3.1±0.2)	.039±.008 (1.0±0.2)	.094±.008 (2.4±0.2)	.028±.008 (0.7±0.2)	.047±.012 (1.2±0.3)

## ordering information

Old Part #	SL	1		TE	20L0	F
New Part #	SL	1	L	TE	20L0	F
	Type	Size	Termination Material	Packaging	Nominal Resistance	Tolerance
	SL TSL	1 Watt 2 Watt 3 Watt	L: SnPb T: Sn	SL1, TSL- TE: 7" embossed plastic SL2, SL3- TE: 10" embossed plastic (TSL - 3,000 pieces/reel) (SL - 1,000 pieces/reel)	±5%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω ±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω All values less than 0.1Ω (100mΩ) are expressed in mΩ with "L" as decimal Example: 20mΩ, 1% = 20L0	D: ±0.5% F: ±1% G: ±2% J: ±5%

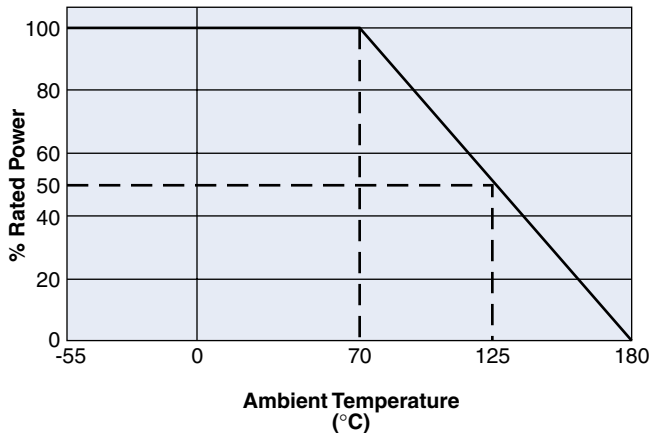
For further information on packaging, please refer to Appendix A.

## applications and ratings

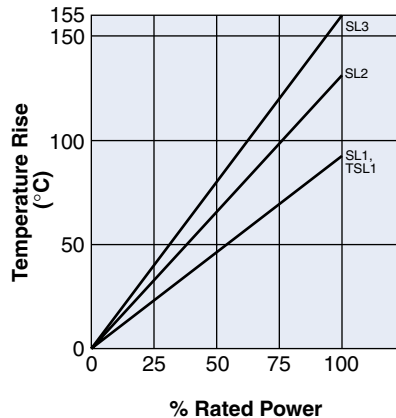
Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range	Resistance Tolerance	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temperature Range
SL1	1W	±180: R=<14.7mΩ ±100: R=>15mΩ	3mΩ, 4mΩ	(G: ±2%, J: ±5%)	200V	400V	-55°C to +180°C
			5mΩ ~ 22MΩ	E-24 (J: ±5%)			
			5mΩ - 1MΩ	E-96 (F: ±1%)			
			10mΩ - 1MΩ	E-96 (D: ±0.5%)			
SL2	2W	±180: R=<10.7mΩ ±100: R=>11mΩ	3mΩ, 4mΩ	(G: ±2%, J: ±5%)	500V	1000V	
			5mΩ ~ 1MΩ	E-24 (F: ±1%)			
			5mΩ - 22MΩ	E-24 (J: ±5%)			
			10mΩ - 1MΩ	E-96 (D: ±0.5%)			
SL3	3W	±180: R=<10.7mΩ ±100: R=>11mΩ	5mΩ - 100mΩ	E-96 (F: ±1%) E-24 (J: ±5%)	$\sqrt{P \cdot R}$	$\sqrt{P \cdot R}$	
			10mΩ - 100mΩ	E-96 (D: ±0.5%)			
TSL1	1W	±180: R=<14.7mΩ ±100: R=>15mΩ	5mΩ - 100mΩ	E-96 (F: ±1%) E-24 (J: ±5%)	$\sqrt{P \cdot R}$	$\sqrt{P \cdot R}$	

## environmental applications

### Derating Curve



### Surface Temperature Rise



## Performance Characteristics

Parameter	Requirement	Test Method
Thermal Shock	±0.5%	MIL-STD-202, Method 107, -55°C to +125°C, 5 cycles
Low Temperature Operation	±0.5%	MIL-R-55342 π 4.7.4, 1 Hour @ -55°C followed by 45 minutes of RCWV*
High Temperature Exposure	±0.5%	MIL-R-55342 π 4.7.6, 100 hours @ 125°C
Solderability	95% of the terminal should be covered with new solder	Immerse in solder at 230°C ± 5°C for 3 ± 0.5 seconds
Resistance to Solder Heat	±1.0% maximum	MIL-R-55342 π 4.7.7, 260°C for 10 seconds
Terminal Strength-Bend	±0.5%	2mm min. deflection in either direction for 10 seconds
Moisture Resistance	±2.0% maximum No evidence of damage	MIL-STD-202, Method 103, 40°C, 90 - 95% RH, 1000 hours
Life	±2.0% maximum No evidence of damage	MIL-STD-202, Method 108, 70°C, 1000 hours @ RCWV, 1.5 hr ON, 0.5 hr OFF
Pulse	±1.5%	SL-2.5 x RCWV, but not exceeding maximum overload voltage, 15 second ON, TSL1-5 x RCWV, but not exceeding maximum overload voltage, 5 second ON, 25 seconds OFF, 1,000 cycles
Temperature Cycling	±1.0% maximum No mechanical damage	30 minutes @ -55°C, 15 minutes @ +25°C, 30 minutes @ +125°C, 15 minutes @ +25°C, 5 cycles

\* RCWV = Rated Continuous Working Voltage.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.