

# 60S Series

Surface Mount  
Metal Plate Current Sense



## FEATURES

- Superior thermal expansion cycling
- Inductance less than 10 nanohenries
- Flameproof
- Solderable pads: Tin (Sn) plate
- Lead flexible for thermal expansion
- Low termination stress (“J” terminals)
- Shape provides cooler operation
- Custom values available

## APPLICATIONS

- Current sensing
- Low inductance
- AC applications
- Feedback

## SERIES SPECIFICATIONS

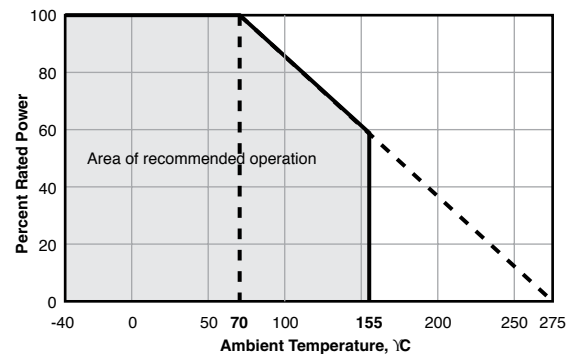
Type	Tolerance	TCR (ppm/C°)	Power Rating (watts)	Resistance Values (Ω)	Rated Ambient Temp. (°C)	Operating Temp. Range (°C)	Qty./ Reel
602SJR	±5%	±100	0.25	0.003, 0.005	+70°C	-40 - +155	2000
605SJR <i>Discontinued*</i>	±5%	±100	0.5	0.002, 0.0375, 0.005, 0.008	+70°C	-40 - +155	2000
610SJR	±5%	±350	1	0.002, 0.003	+85°C	-40 - +155	1500

\* 605SJR discontinued March 2017, Specifications remain for reference only

## CHARACTERISTICS

Parameter	Requirement	Test Method (JIS C 5202)
Resistance	Within regulated tolerance	25°C
T.C.R.	Within specified T.C.R.	Room temperature/100°C up
Resistance to Solder Heat	±2.0%	350°C ± 10°C, 3 seconds
Solderability	95% coverage minimum	235°C ± 5°C, 5 seconds
Moisture Resistance	±3.0%	40°C, 90 - 95% RH, 1000 hours, no load
Moisture Resistance	±5.0%	Power rating x 1/10, 40°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Load Life	±5.0%	Rating voltage, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle

## Derating



# 60S Series

## Surface Mount Metal Plate Current Sense

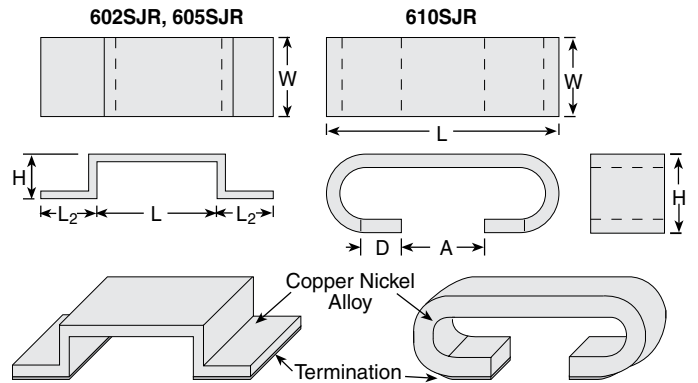
### DIMENSIONS

inches (mm)

	L	L2	H	W
602SJR	0.39 ± .008 (10.0 ± 0.2)	0.018 ± .008 (2 ± 0.2)	0.024 (0.6 ± 0.1)	0.118 ± .008 (3.0 ± 0.2)
605SJR	0.39 ± .008 (10.0 ± 0.2)	0.018 ± .008 (2 ± 0.2)	0.079 (2 max.)	0.20 ± .008 (5.2 ± 0.2)

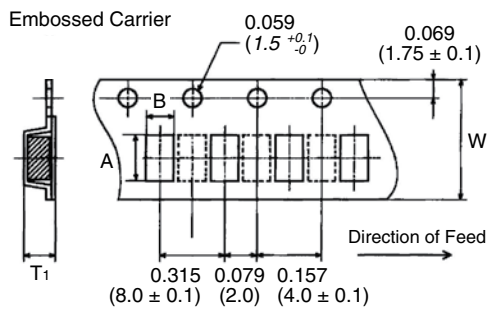
  

	L	H	D	A	W
610SJR	0.44 ± .016 (11.2 ± 0.4)	0.137 ± .016 (3.5 ± 0.4)	0.095 ± .010 (2.35 ± 0.25)	0.189 ± .030 (4.8 ± .75)	0.126 ± .016 (3.2 ± 0.40)



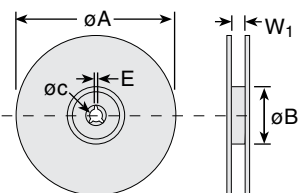
### PACKAGING SPECIFICATIONS

inches (mm)



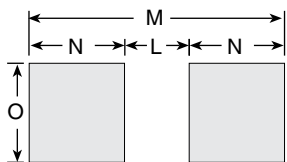
#### Tape

Type	A	B	W	T1
602SJR	0.057 (1.45 ± 0.2)	0.134 (3.4 ± 0.2)	0.079 (2.0)	0.098 (2.5 ± 0.2)
605SJR	0.057 (1.45 ± 0.2)	0.224 (5.7 ± 0.2)	0.079 (2.0)	0.091 (2.3 ± 0.2)
610SJR	0.461 (11.7 ± 0.1)	0.169 (4.3 ± 0.1)	0.945 (24.0 ± 0.2)	—



#### Reel

Type	A	B	C	E	W1	qty./reel
602SJR	10.0	3.15	0.511	0.079	1.0	2000
605SJR	(255 ± 0.0 - 3.0)	(80 ± 1.0 - 0)	(13.0 ± 0.2)	(2.0 ± 0.5)	(25.5 ± 2.0)	
610SJR	12.99 (330 ± 2.0)	3.94 (100 ± 2.0)	0.511 (13.0 ± 0.2)	0.079 (2.0 ± 0.5)	1.0 (25.5 ± 2.0)	1500



#### Land pattern

Type	M	N	O	L
602SJR	0.622 (16.0)	0.118 (3.0)	0.150 (3.8)	0.394 (10.0)
605SJR	0.622 (16.0)	0.118 (3.0)	0.236 (6.0)	0.394 (10.0)
610SJR	0.369 (9.36)	0.121 (3.07)	0.142 (3.60)	0.127 (3.22)

Land pattern dimensions are for reference only

### ORDERING INFORMATION

#### Standard Part Numbers for 60S Series

Ohms	Wattage:	Series:	602SJR	610SJR
0.00200Ω	0.25 watt			610SJR00200E-T
0.00300Ω	0.25 watt		602SJR00300E-T	610SJR00300E-T
0.00375Ω	0.25 watt			
0.00500Ω	0.25 watt		602SJR00500E-T	

RoHS Compliant

**602SJR00300E-T**

Type & Power Rating: 602S = 0.25 watt, 605S = 0.5 watt, 610S = 1 watt  
 Tolerance: J = 5%  
 Ohms: R00200 = 0.00200Ω, R00300 = 0.00300Ω, R00375 = 0.00375Ω  
 Packaging: T = tape and reel (optional)