



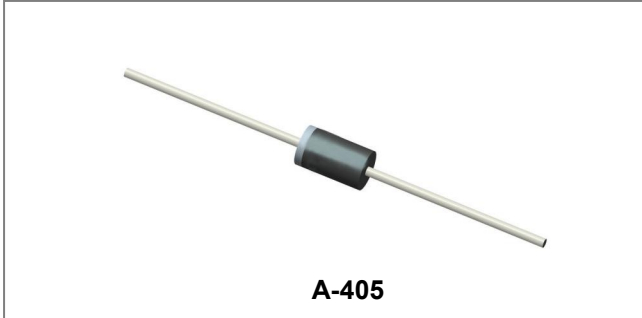
THE DATASHEET OF
RL102



RL101 THRU RL107

GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Amperes



Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: A-405 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.008 ounce, 0.23 grams

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

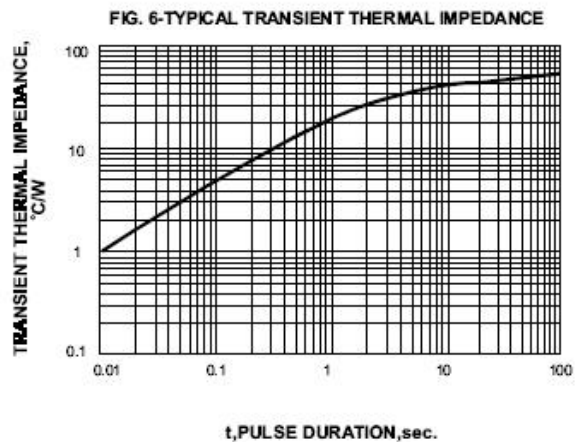
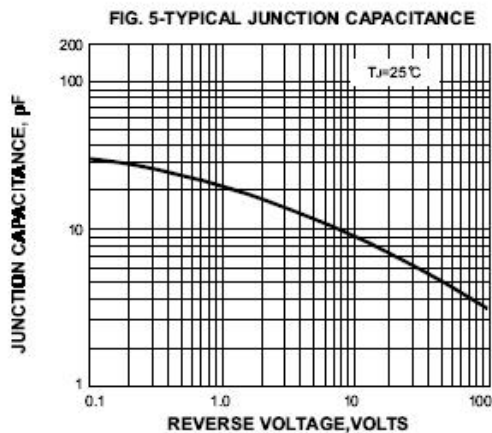
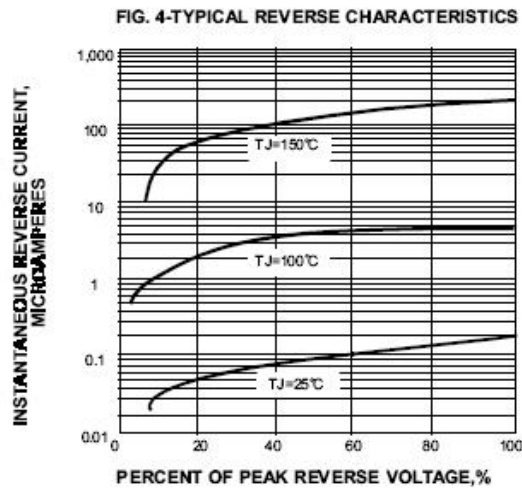
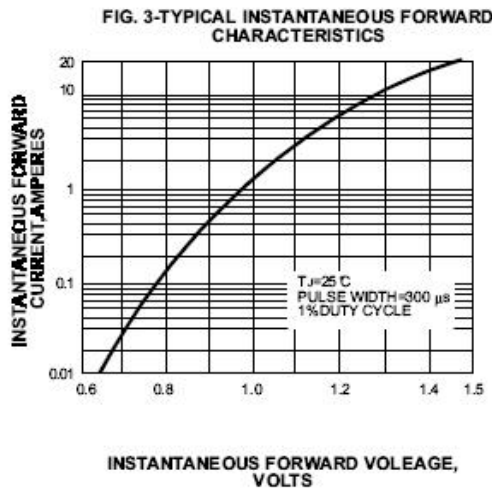
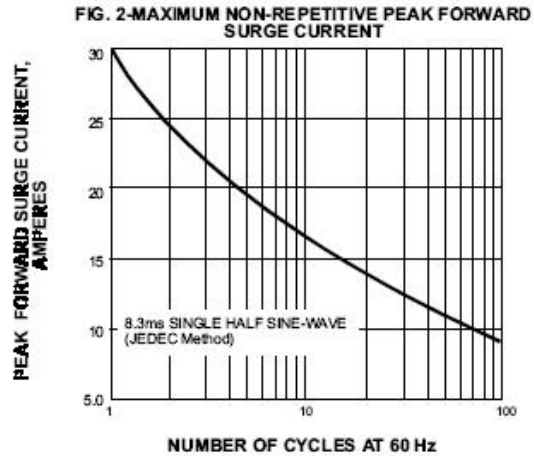
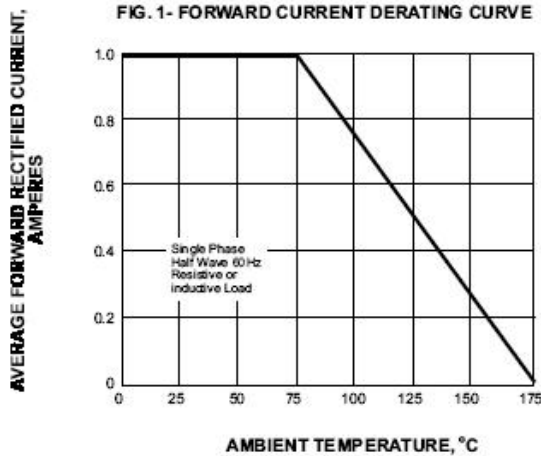
Characteristic	Symbol	RL101	RL102	RL103	RL104	RL105	RL106	RL107	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V _{RRM} V _{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375"(9.5mm) lead length @T _A = 75°C	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.1							V
Maximum DC reverse current @T _A = 25°C at rated DC blocking voltage @T _A = 100°C	I _R	5.0 50.0							µA
Typical Junction Capacitance (Note 1)	C _J	15.0							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	50.0							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175							°C

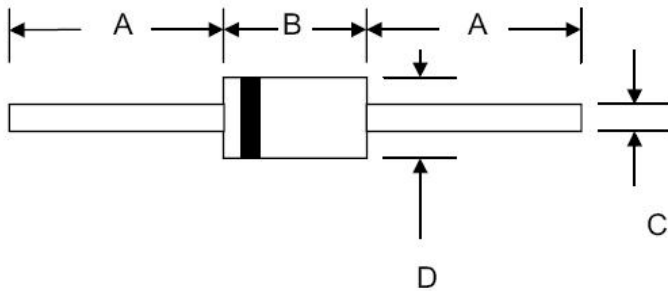
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Ratings and Characteristics Curves



Mechanical Dimensions A-405


SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.20	5.20	0.166	0.205
C	0.55	0.65	0.021	0.025
D	2.00	2.70	0.080	0.107

Ordering Information

Device	Package	Shipping
RL101-RL107	A-405 (Pb-Free)	5000pcs / reel

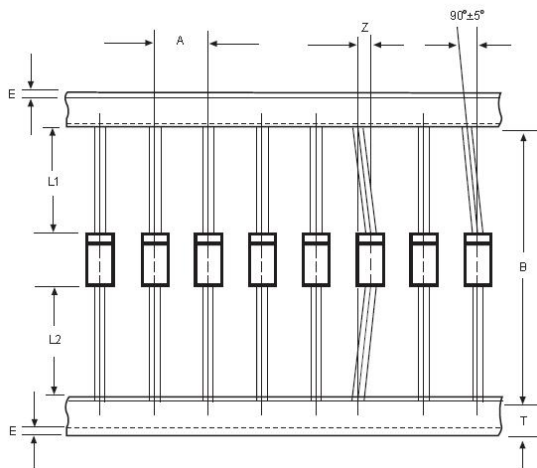
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram


Where XXXXX is YYWWL

RL101 = Part Name
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

Cautions: Molding resin
 Epoxy resin UL:94V-0

Carrier Tape Specification A-405


SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	25.3	25.5
Z	1.20	1.30
T	5.5	6.5
E	-	0.80
IL1-L2I	-	1.0

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