

Features and Benefits

- UL Recognized, File #94661
- Ideal for Printed Circuit Board
- Surge Overload Rating of 250A Peak
- Low Forward Voltage Drop
- The Plastic Material Carries UL Recognition 94V-0
- **Lead Free Finish, RoHS Compliant (Date Code 0514+)**
(Note 1)

Mechanical Data

- Case: RS-6, Molded Plastic
- Terminals: Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Body
- Weight: 8.0 grams (approximate)

Ordering Information (Note 2)

Part Number	Case	Packaging
RS601	RS-6	0.5K Bulk
RS602	RS-6	0.5K Bulk
RS603	RS-6	0.5K Bulk
RS604	RS-6	0.5K Bulk
RS605	RS-6	0.5K Bulk
RS606	RS-6	0.5K Bulk
RS607	RS-6	0.5K Bulk

Notes: 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2). All applicable RoHS exemptions applied.
 2. For Packaging Details, go to our website at <http://www.diodes.com>.

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

Single phase, 60Hz, resistive or inductive load.
 For capacitance load, derate current by 20%.

Characteristic	Symbol	RS 601	RS 602	RS 603	RS 604	RS 605	RS 606	RS 607	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V _{RSM}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	@T _C = 100°C	6.0							A
	@T _A = 40°C								
Peak Forward Surge Current, 8.3ms Half Sine-Wave Superimposed on Rate Load	I _{FSM}	250							A
Maximum DC Forward Voltage Drop per Element at 3.0A	V _F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage, per Element	@T _A = 25°C	10							μA
	@T _A = 100°C	1.0							mA
Maximum Thermal Resistance (Note 3)	R _{θJC}	4.7							°C/W
Operating Temperature Range	T _J	-55 TO +125							°C
Storage Temperature Range	T _{STG}	-55 TO +150							°C

Notes: 3. Thermal Resistance, Junction to case per diode.

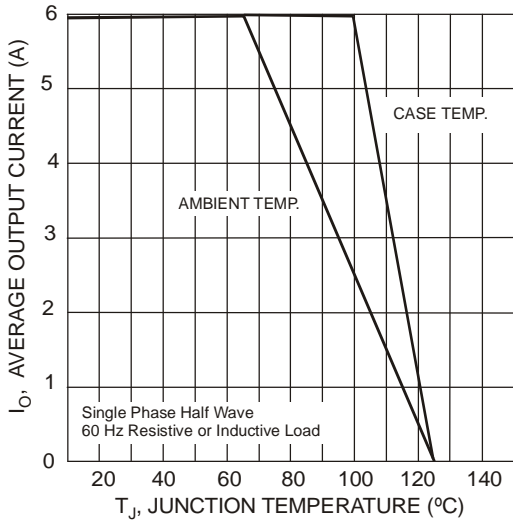


Fig. 1 Forward Current Derating Curve

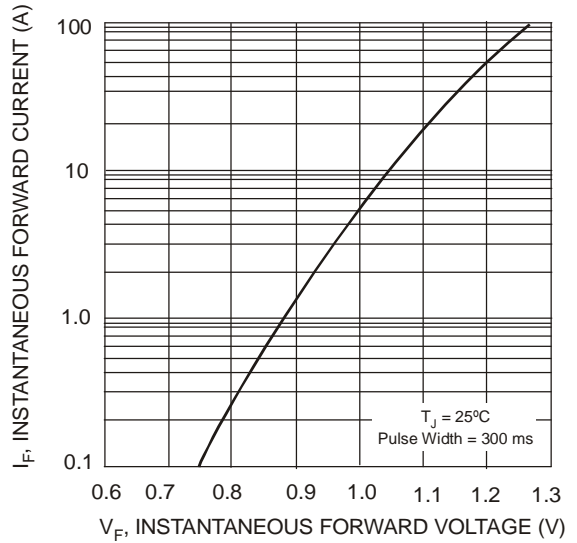


Fig. 2 Typical Forward Characteristics

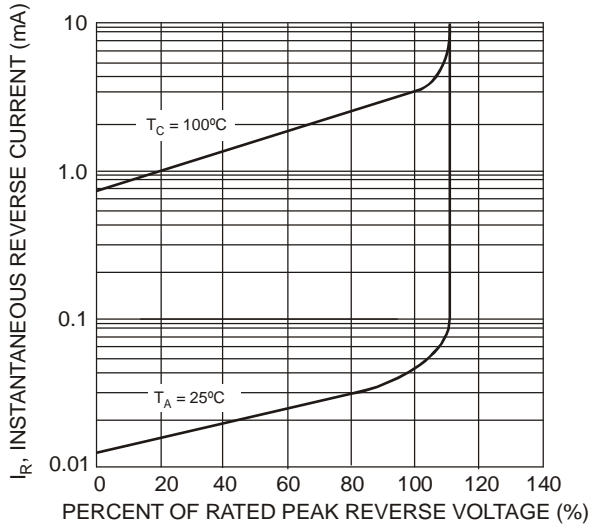


Fig. 3 Typical Reverse Characteristics

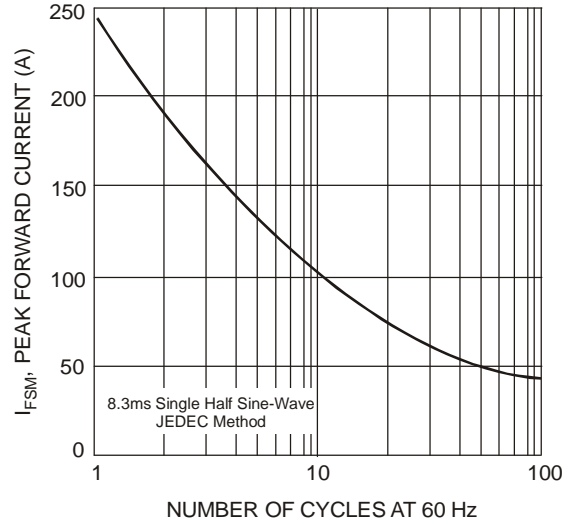


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

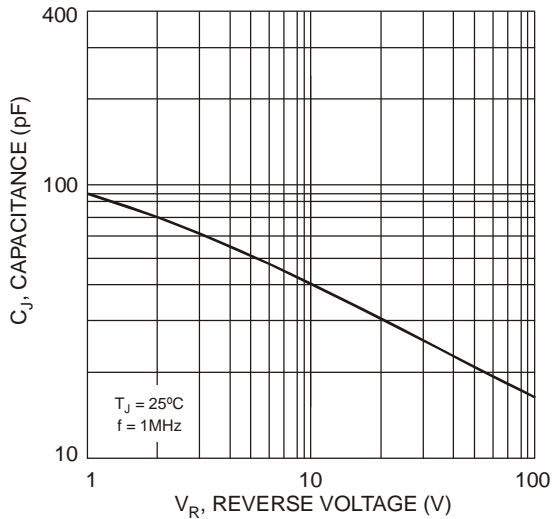
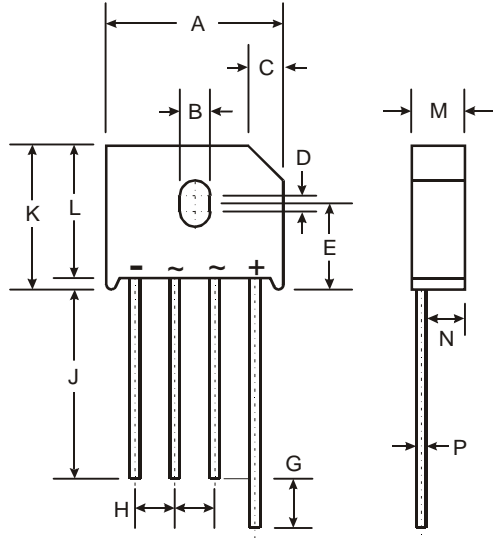


Fig. 5 Typical Junction Capacitance Per Element

Package Outline Dimensions



RS-6		
Dim	Min	Max
A	22.7	23.7
B	3.6	4.1
C	4.2	4.7
D	1.7	2.2
E	10.3	11.3
G	4.5	6.8
H	4.6	5.6
J	25.4	-
K	-	19.3
L	16.8	17.8
M	6.6	7.1
N	4.7	5.2
P	1.2	1.3
All Dimensions in mm		

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