RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

RS1501MLS THRU RS1507MLS

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 15 Amperes

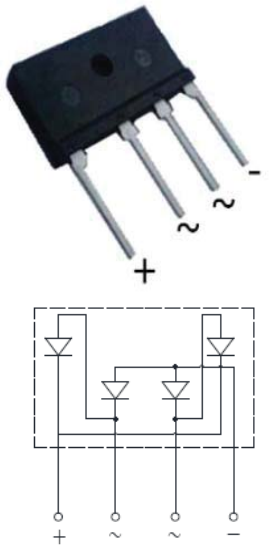
FEATURES

* Low leakage
* Low forward voltage
* Mounting position : Any
* Surge overload rating: 150 Amperes peak
* Ideal for printed circuit boards
* MSL: Level 1

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O

RS-15MLS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM CHARACTERISTICS (@ T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RS1501MLS	RS1502MLS	RS1503MLS	RS1504MLS	RS1505MLS	RS1506MLS	RS1507MLS	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc=100 °C degree with heatsink	I_O	15							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	220							Amps
Typical Current Square Time	I^2T	200							A^2S
Insulation voltage	Viso	3000							Volts
Typical Thermal Resistance from junction to ambient	$R\theta_{JA}$	22							°C/W
Typical Thermal Resistance from junction to case	$R\theta_{JC}$	1.5							
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (@ T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	RS1501MLS	RS1502MLS	RS1503MLS	RS1504MLS	RS1505MLS	RS1506MLS	RS1507MLS	UNITS
Maximum Forward Voltage Drop per element at 7.5A DC		V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@TA=25 °C	IR	0.2							µAmps
	@TA=100 °C		50							µAmps

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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REV: O47

RATING AND CHARACTERISTICS CURVES (RS1501MLS THRU RS1507MLS)

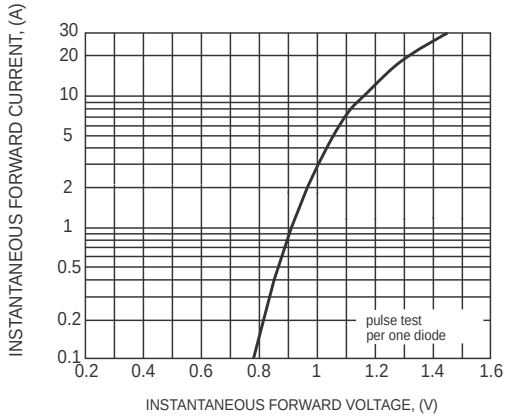


FIG.1 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

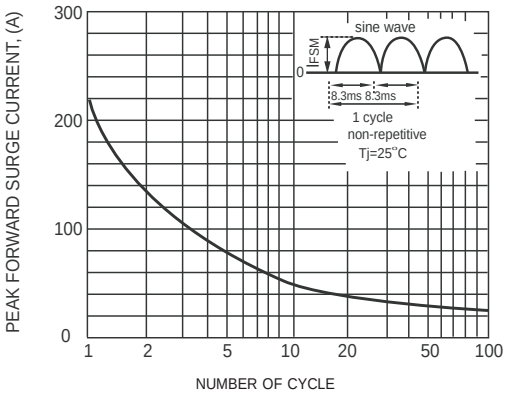


FIG.2 SURGE FORWARD CURRENT CAPABILITY

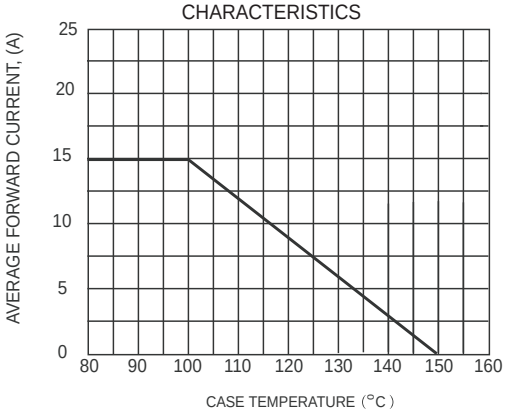


FIG.3 TYPICAL FORWARD CURRENT DERATING CURVE

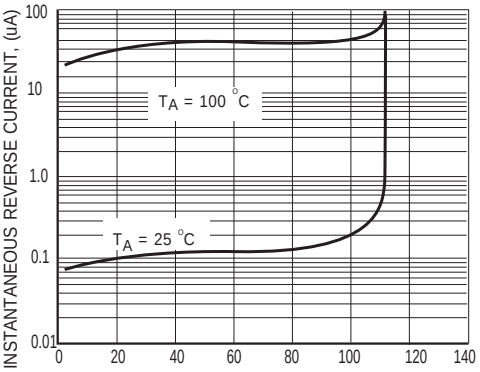
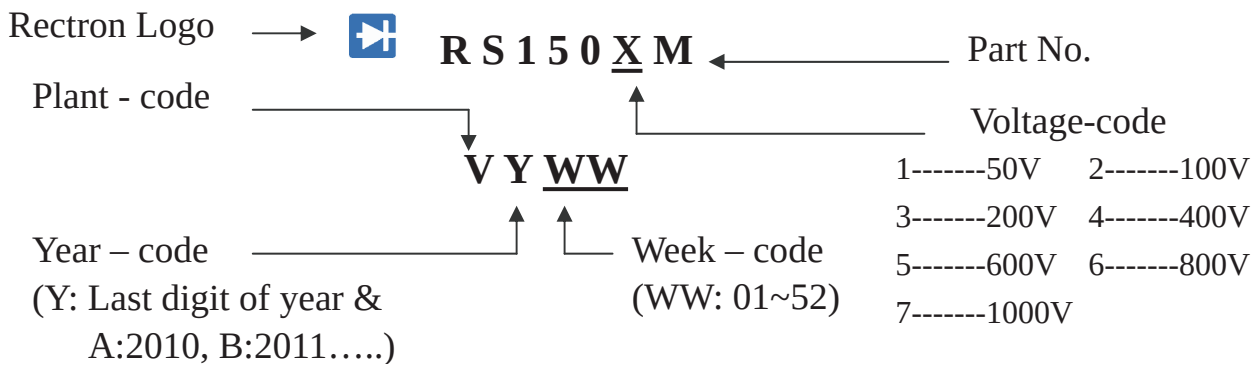
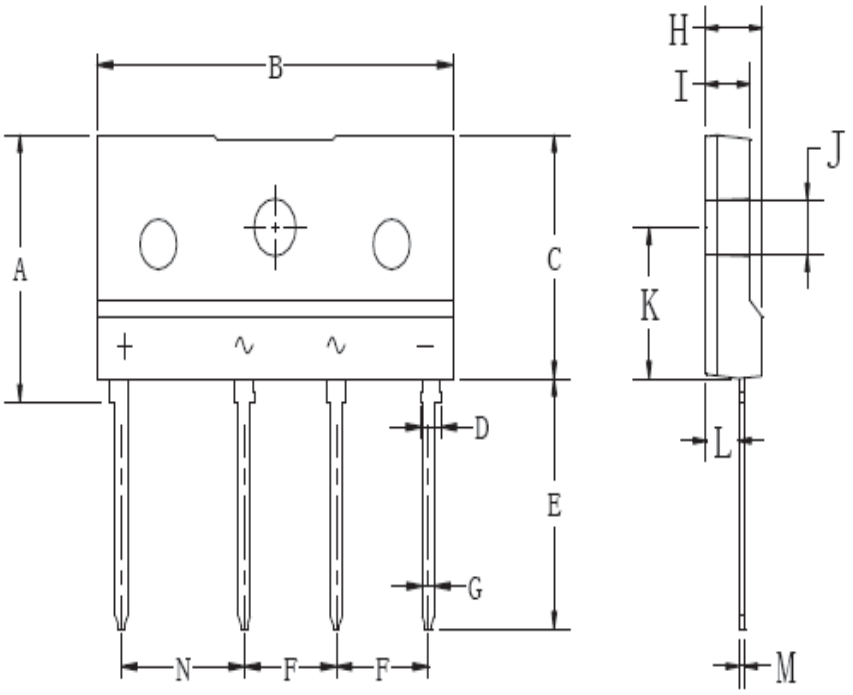


FIG.4 MAXIMUM REVERSE CHARACTERISTICS

Marking Description



RS-15MLS



Dimensions in millimeters

Dim	Min	Max
A	15.6	16.2
B	28.7	29.3
C	14.2	14.8
D	1.5	1.7
E	14.6	15.2
F	7.3	7.7
G	0.9	1.1
H	4.3	4.9
I	3.3	3.9
J	3.1	3.4
K	8.7	9.3
L	2.5	2.9
M	0.4	0.6
N	9.8	10.2

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
RS-15MLS	-B	250	300*138*35	319*296*165	2000	9.7

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