

SCHOTTKY BARRIER RECTIFIER
VOLTAGE 100 Volts CURRENT 5.0 Amperes

FEATURES

- * Low power loss, High efficiency
- * Lead free in comply with EU RoHS
- * High Forward Surge Capability
- * Low Forward Voltage Drop
- * Excellent High Temperature Stability

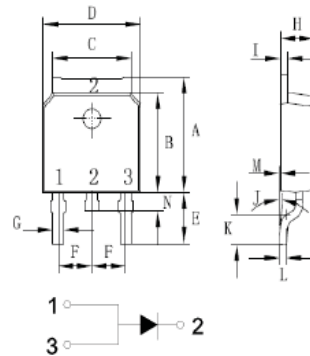
MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * Case: DPAK molded plastic
- * Polarity: As marking

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TO-252 (DPAK)



TO-252 (DPAK)

Unit:mm

DIM	MIN	MAX
A	6.85	7.25
B	5.90	6.30
C	5.13	5.53
D	6.40	6.80
E	2.90	3.30
F	2.19	2.39
G	0.45	0.85
H	2.20	2.40
I	0.41	0.61
J	0°	8°
K	1.45	1.85
L	0.41	0.61
M	0.00	0.12
N	0.60	1.00

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SRL5100K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
Maximum RMS Voltage	V_{RMS}	70	Volts
Maximum DC Blocking Voltage	V_{DC}	100	Volts
Max Avg Forward Rectify Current at Ambient Temp needs To be corrected to Lead Temperature, TL	I_O	5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150	Amps
Typical Current Square Time	I^2T	93.4	A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55	°C/W
	$R_{\theta JL}$	17	
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

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

CHARACTERISTICS	SYMBOL	SRL5100K	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	V_F	.55	Volts
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	0.2	mA
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		2	mA

NOTES : 1. Thermal Resistance : Mounted on PCB.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2016-04
REV: 06

RATING AND CHARACTERISTICS CURVES (SRL5100K)

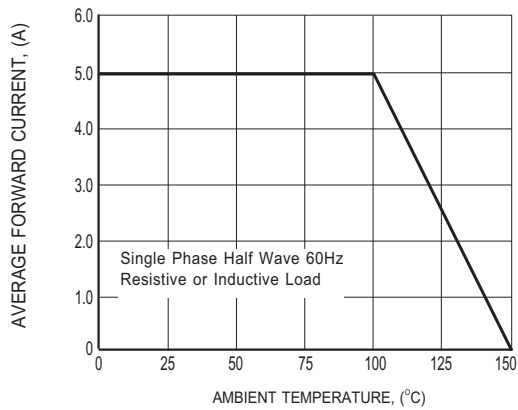


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

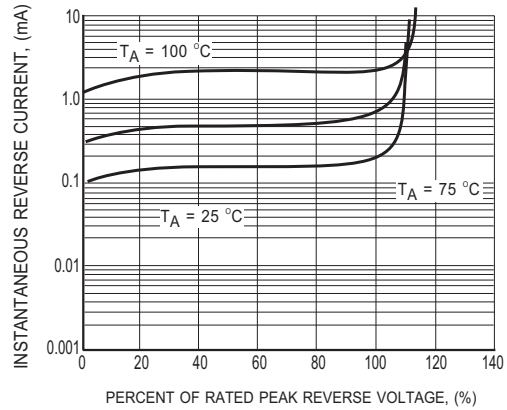


FIG.2 TYPICAL REVERSE CHARACTERISTICS

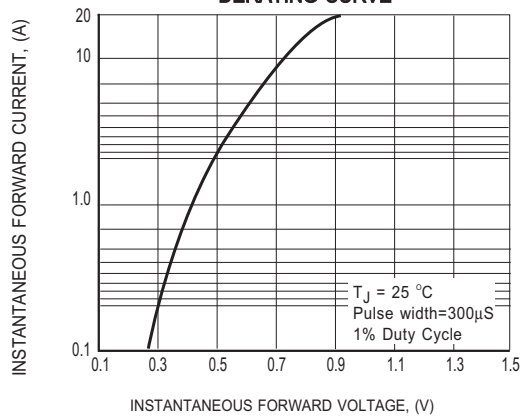


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

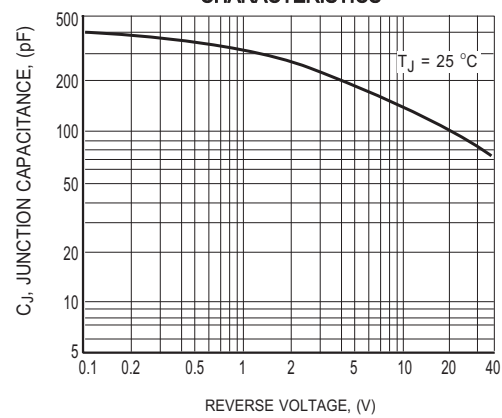


FIG.4 TYPICAL JUNCTION CAPACITANCE

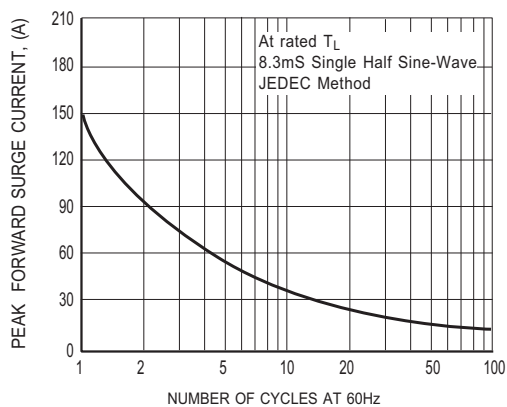


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

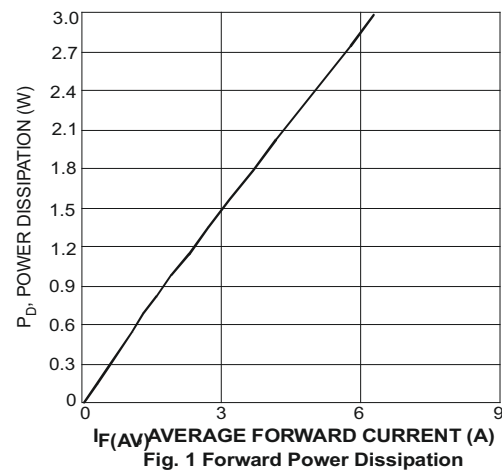
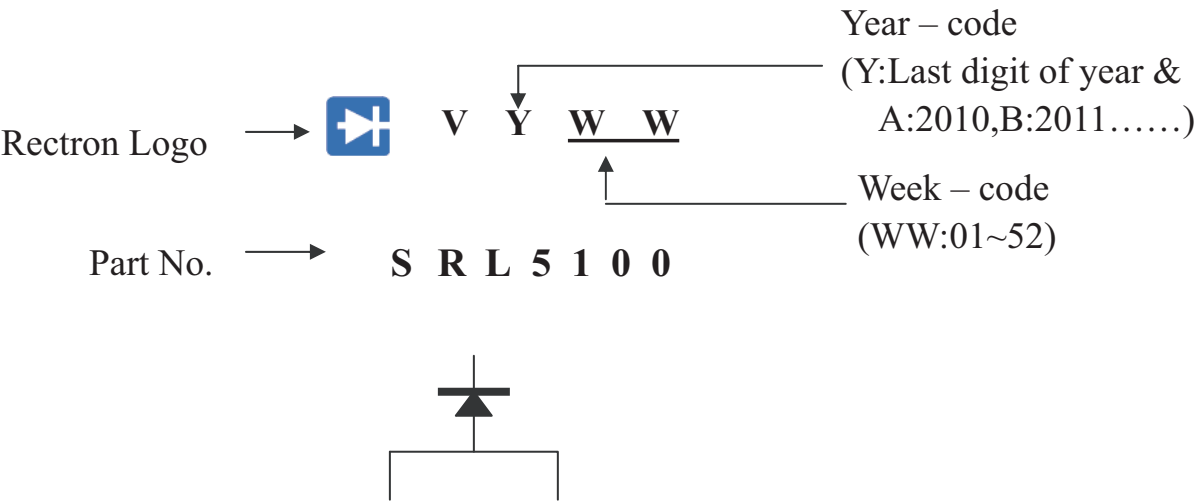


Fig. 1 Forward Power Dissipation

Marking Description



DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.