

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 1600 Volts CURRENT 0.5 Ampere

FEATURES

- * Fast switching
- * Glass passivated device
- * Low forward voltage drop
- * High surge capability
- * High reliability
- * P/N suffix V means AEC-Q101 qualified, e.g:F16WV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

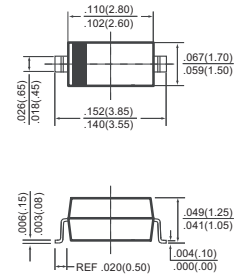
- * Epoxy: Device has UL flammability classification 94V-O
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



SOD-123



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

RATINGS	SYMBOL	F16W	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	1600	Volts
Maximum RMS Voltage	V _{RMS}	1120	Volts
Maximum DC Blocking Voltage	V _{DC}	1600	Volts
Maximum Average Forward Rectified Current @ TA=25 °C	I _O	0.5	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25	Amps
Typical Current Square Time	I ² T	2.6	A ² S
Operating Temperature Range	T _J	-55 to + 150	°C
Storage Temperature Range	T _{STG}	-55 to + 150	°C
Typical Junction Capacitance(Note 1)	C _J	15	pF

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

CHARACTERISTICS	SYMBOL	F16W	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V _F	1.8	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	5.0	uAmps
	@TA = 150 °C	1.0	mAmps
Maximum Reverse Recovery Time (Note 4)	T _{rr}	300	nS

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4 Volts.
2. "ROHS compliant".
3. Thermal Resistance: Mounted on PCB.
4. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A

RATING AND CHARACTERISTICS CURVES (F16W)

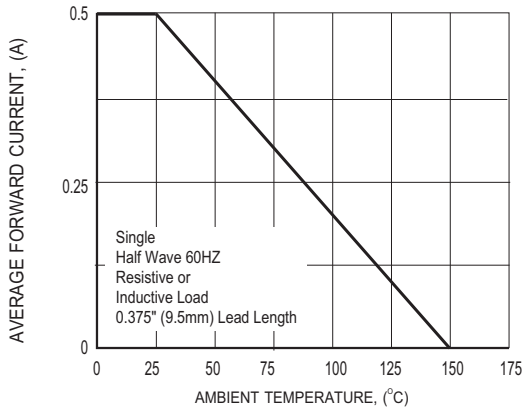


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

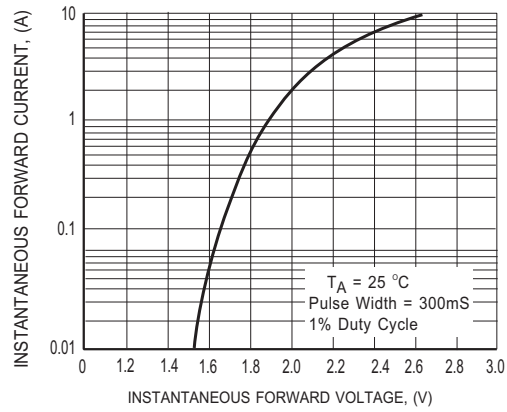


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

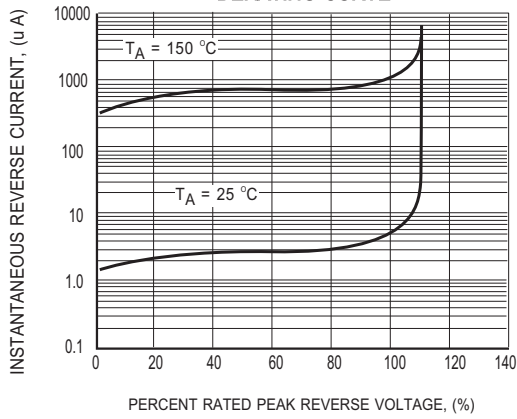


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

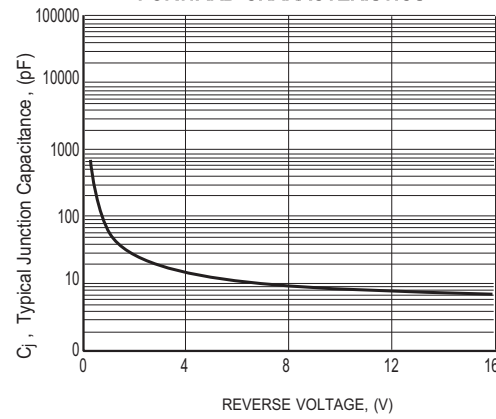


FIG.4 TYPICAL TOTAL CAPACITANCE

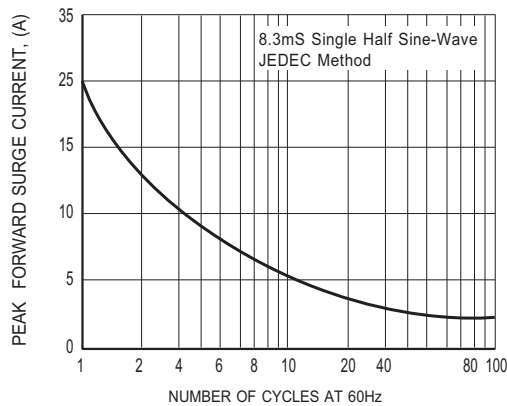
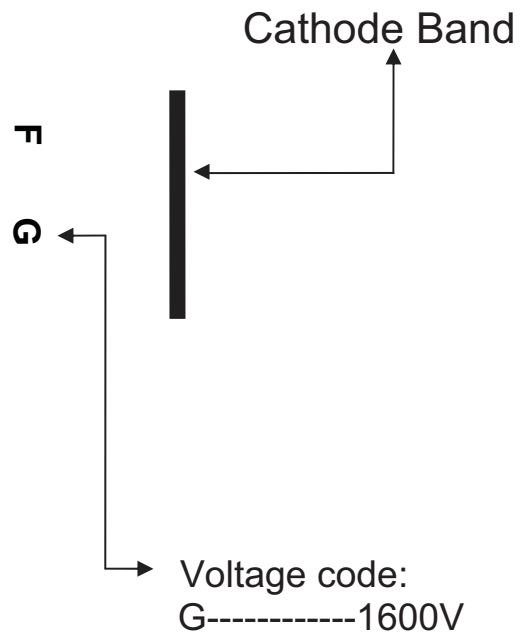


FIG.5 TYPICAL REVERSE CHARACTERISTICS

Marking Description

Year- code: ← ←
(Last digit of year &
A:2010,B:2011...)

Week code: ← ←
A: week 01~02
B: week 03~04
C: week 05~06
.....
Z: week 51~52



PACKAGING OF DIODE

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123	-T	3,000	---	---	178	438*438*220	180,000	9.00

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.