

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
- * Anti-ESD and Flat lead frame
- * P/N suffix V means AEC-Q101 qualified, e.g:F16FLV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

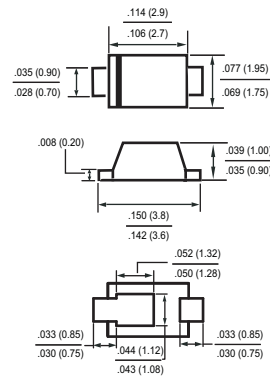
- * Epoxy: Device has UL flammability classification 94V-0
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



SOD-123FL



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

RATINGS	SYMBOL	F16FL	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	F16FL	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 (F16FL)

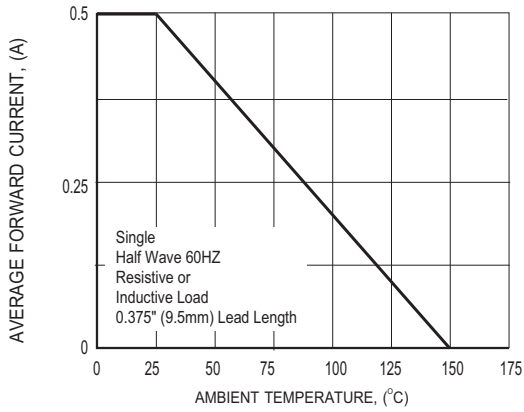


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

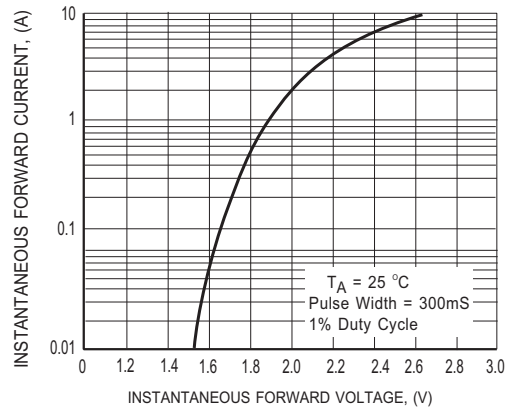


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

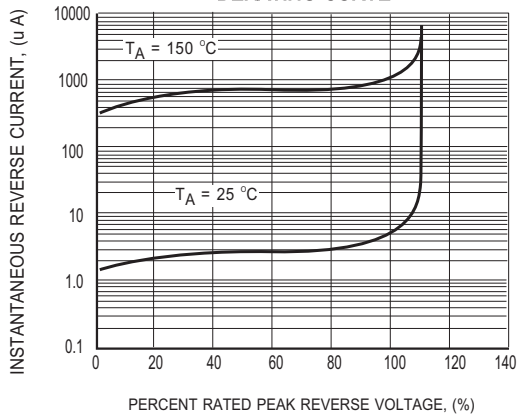


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

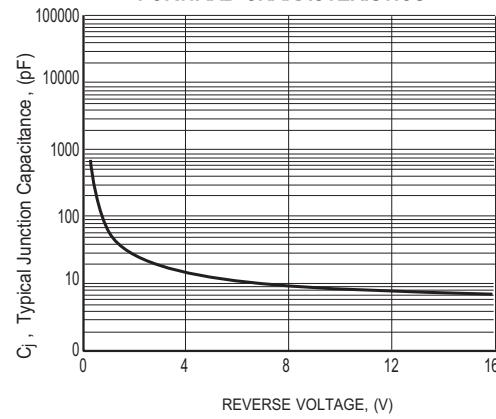


FIG.4 TYPICAL TOTAL CAPACITANCE

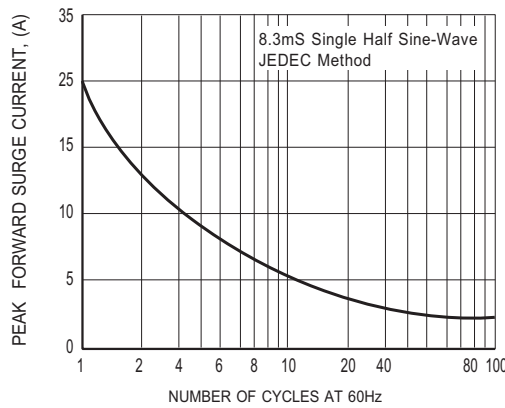
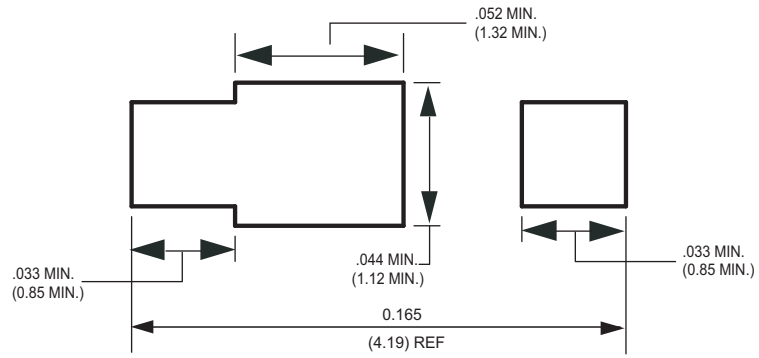


FIG.5 TYPICAL REVERSE CHARACTERISTICS

Mounting Pad Layout

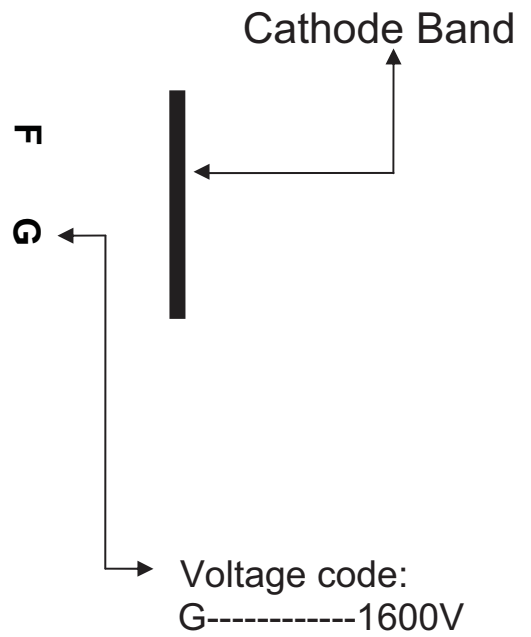


Dimensions in inches and (millimeters)

Marking Description

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

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



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F/ SOD-123FL	-W	3,000	15,000	---	---	178	390*205*31	120,000	6.964

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