

GPP SNUBBER DAMPING RECTIFIER

VOLTAGE RANG 50 to1000 Volts CURRENT 1.0 Ampere

FEATURES

- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability
- * Soft reverse recovery time

MECHANICAL DATA

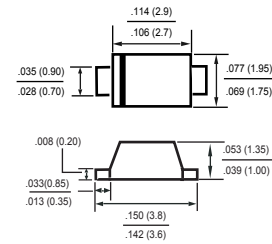
- * Mounting position: Any
- * Weight: 0.018 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



SOD-123F



BODY MARKING: SDR11---SF1
SDR12---SF2
SDR13---SF3
SDR14---SF4
SDR15---SF5
SDR16---SF6
SDR17---SF7

Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	SDR11	SDR12	SDR13	SDR14	SDR15	SDR16	SDR17	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Current at T _A = 55°C	I _O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30							Amps
Typical Current Squarad Time	I ² t	3.74							A ² /Sec
Typical Thermal Resistance (Note 3)	R _{θJA}	32							°C/W
	R _{θJL}	150							
Typical Junction Capacitance (Note 2)	C _J	15							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

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

CHARACTERISTICS	SYMBOL	SDR11	SDR12	SDR13	SDR14	SDR15	SDR16	SDR17	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25°C	I _R	2.0							uAmps
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at T _L = 55°C		100							uAmps
Maximum Reverse Recovery Time (Note 1)	trr	150				250	500		nSec

NOTES : 1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = -1.0A$, $I_{RR} = -0.25A$
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts
3. Thermal Resistance : Mounted on PCB.

2020-04
REV:A

RATING AND CHARACTERISTICS CURVES (SDR11 THRU SDR17)

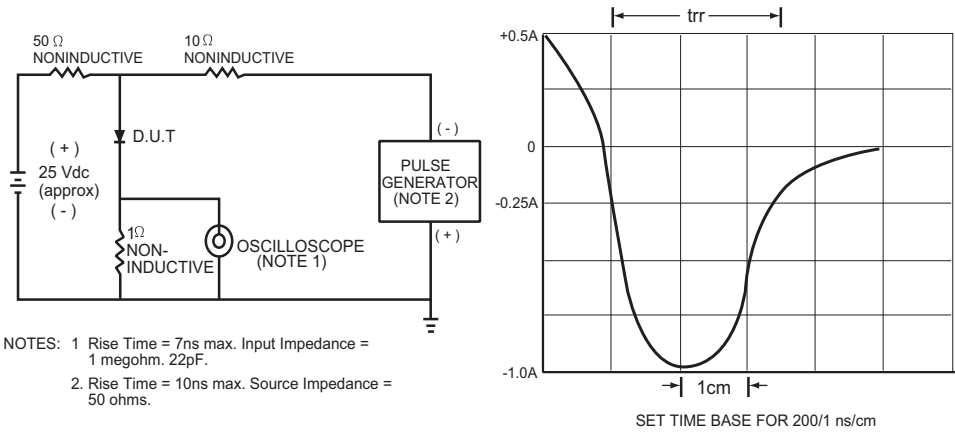


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

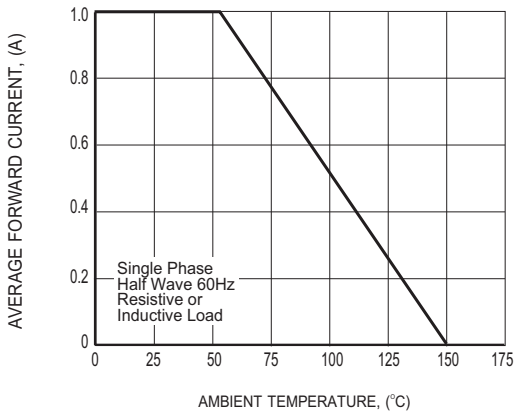


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

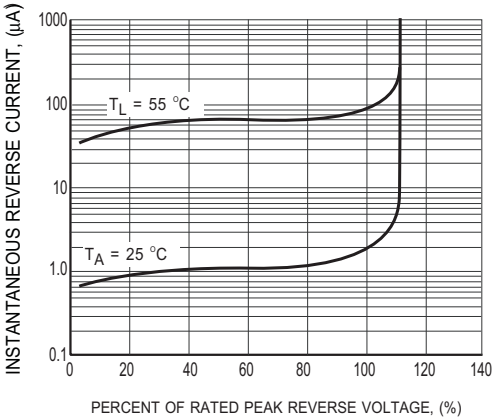
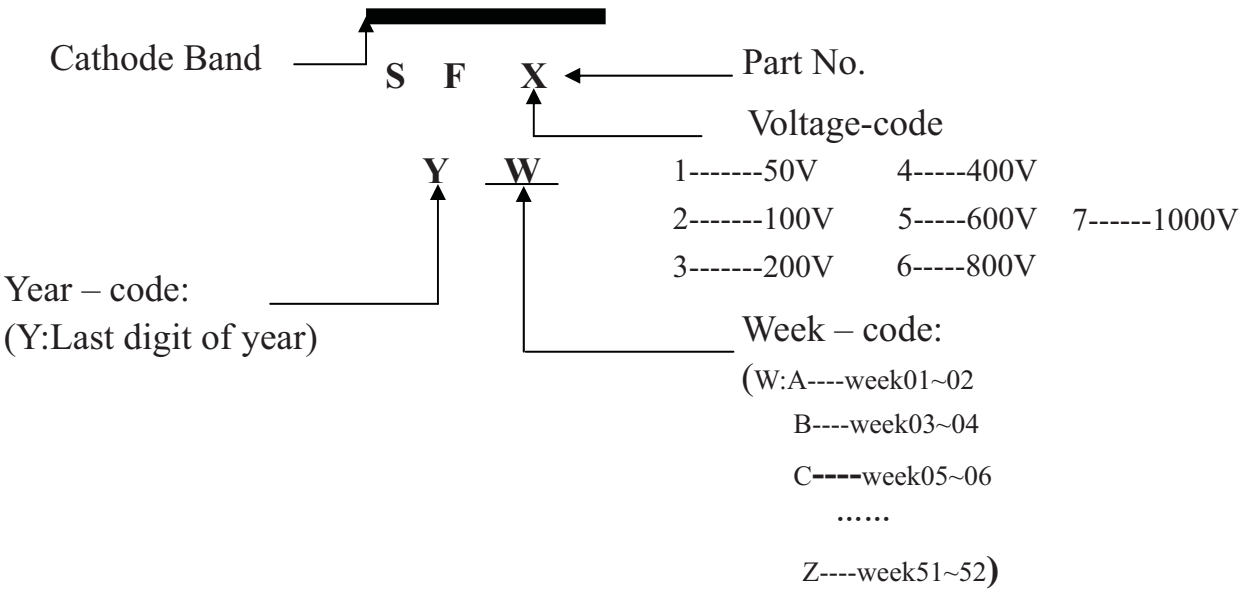
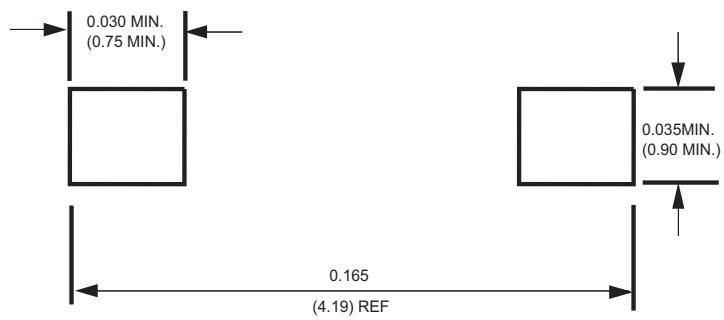


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

Marking Description



Mounting Pad Layout



Dimensions in inches and (millimeters)

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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