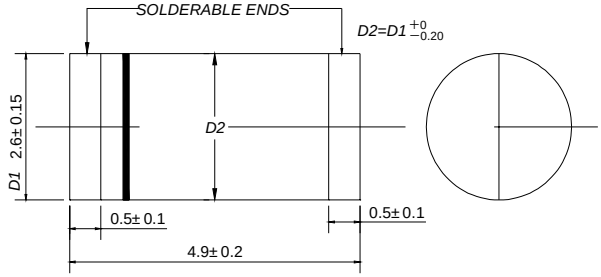
SUF4001-SUF4007

Surface Mount Rectifiers

REVERSE VOLTAGE: 50 - 1000 V
CURRENT: 1.0 A

DO - 213AB



Dimensions in millimeters

Features

- Glass passivated device
- Ideal for surface mouted applications
- Low leakage current
- Metallurgically bonded construction

Mechanical Data

- Case:JEDEC DO-213AB,molded plastic over passivated chip
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounces, 0.116 gram
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SUF 4001	SUF 4002	SUF 4003	SUF 4004	SUF 4005	SUF 4006	SUF 4007	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forword rectified current T_A=50℃	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum forward voltage at 1.0A	V_F	1.0				1.7			V
Maximum DC reverse current @T_j=25℃ at rated DC blockjing voltage @T_j=100℃	I_R	10 50							μA
Maximum reverse recovery time (Note1)	t_{rr}	50				75			ns
Typical thermal resistance (NOTE 2)	$R_{\theta JT}$	10							K/W
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	45							K/W
Operating temperature range	T_j	- 55 --- + 175							℃
Storage temperature range	T_{STG}	- 55 --- + 175							℃

NOTES:1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Thermal resistance junction to terminal, 6.0 mm^2 coppeer pads to each terminal.

3. Thermal resistance junction to ambient, 6.0 mm^2 coppeer pads to each terminal.

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Ratings AND Charactieristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

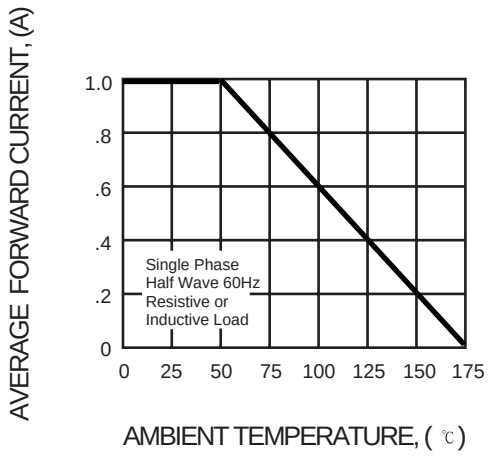


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

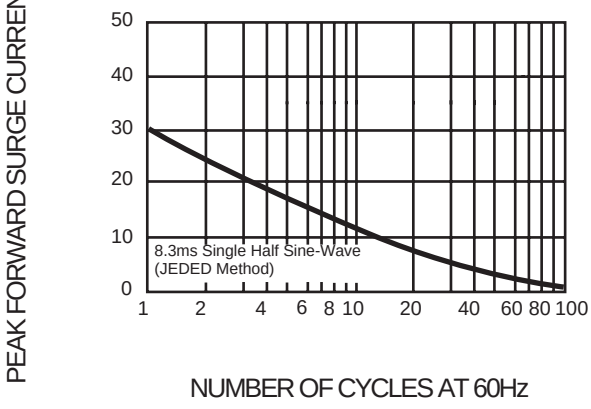


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

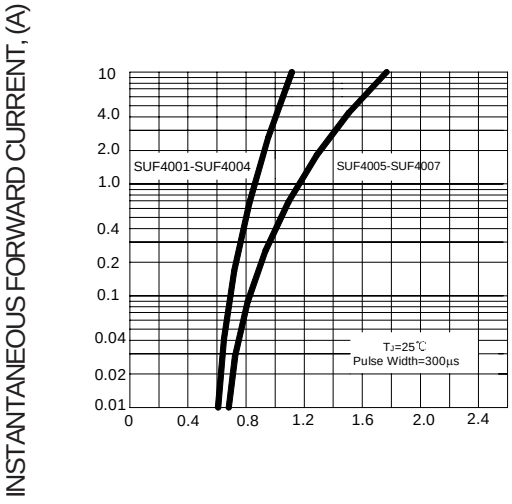


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

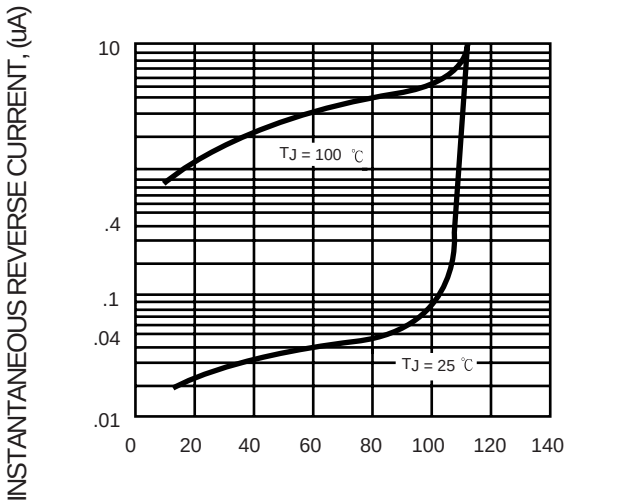
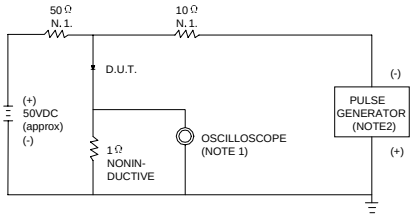
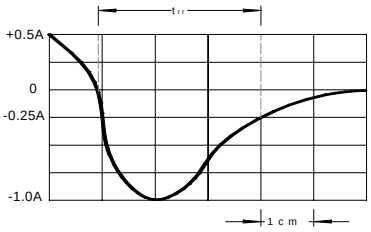


FIG.5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1M Ω 22pF.

2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω

SET TIME BASE FOR 25 ns/cm