

SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 50 - 1000 V
CURRENT: 1.0 A

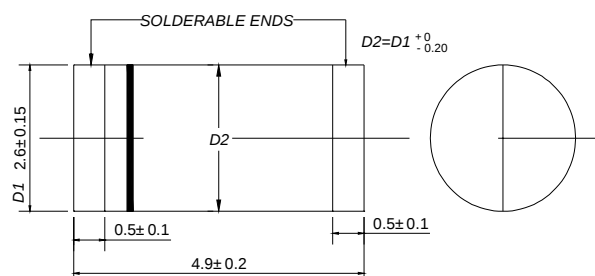
FEATURES

- 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
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounces, 0.116 gram
- Mounting position: Any

DO - 213AB



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive 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 forward 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 _{θJT}	10							K/W
Typical thermal resistance (NOTE 3)	R _{θJA}	45							K/W
Operating temperature range	T _j	- 55 --- + 175							
Storage temperature range	T _{STG}	- 55 --- + 175							

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

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2. Thermal resistance junction to terminal, 6.0 mm² coppeer pads to each terminal.

3. Thermal resistance junction to ambient, 6.0 mm² coppeer pads to each terminal.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

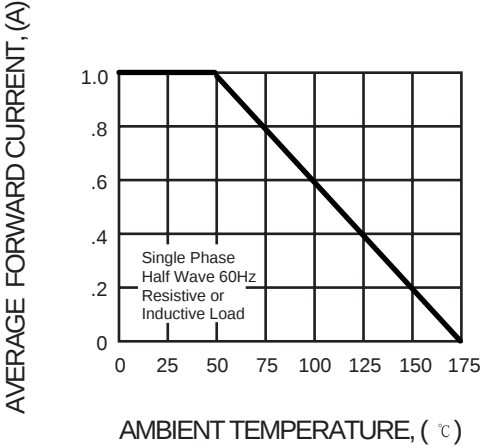


FIG. 2 - MAXIMUM NON-REPETTIVE FORWARD SURGE CURRENT

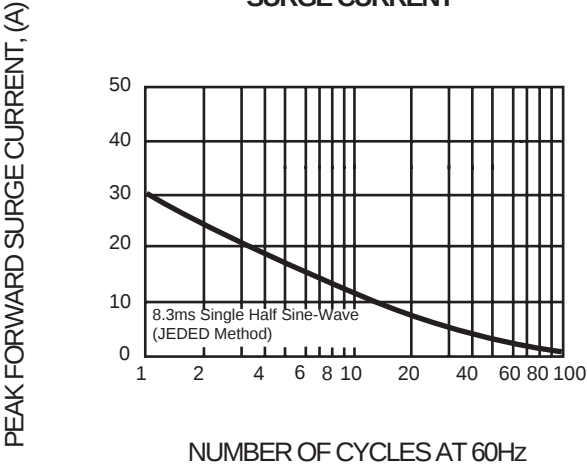


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

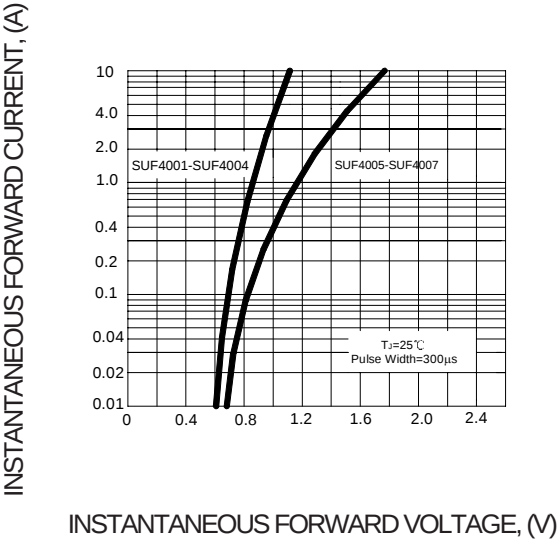


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

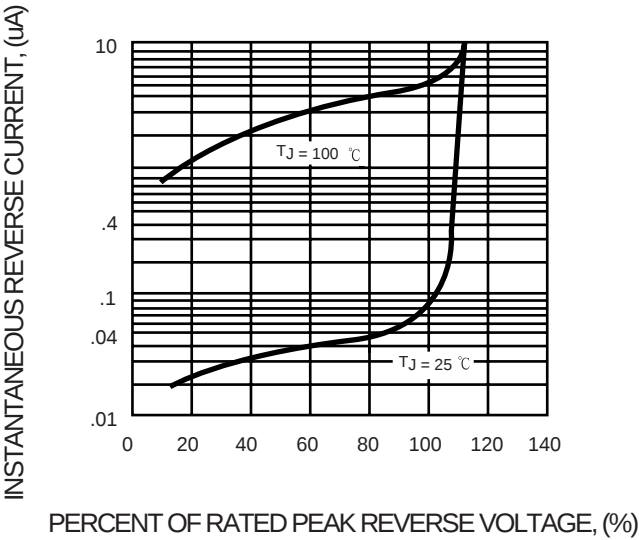
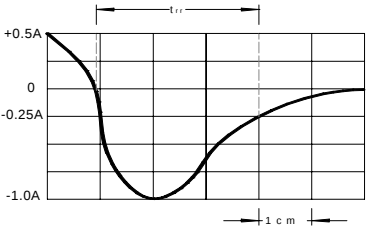
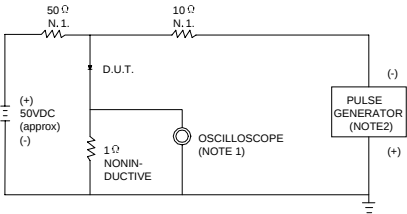


FIG.5 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1M Ω 22pF. SET TIME BASE FOR 25 ns/cm

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