Surface Mount Rectifiers

SUF4001--SUF4007

FEATURES

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

Lead-free

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 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave,60 Hz, resistixe or inductive load. For capacitive load, derate 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 instantaneous forward voltage at 1.0 A	V_F	1.0				1.7			V
Maximum reverse current @T_J=25℃ at rated DC blocking voltage @T_J=100℃	I_R	10 50							μA
Maximum reverse recovery time (Note1)	trr	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 junction temperature range	T_J	- 55 --- + 175							℃
Storage temperature range	T_{STG}	- 55 --- + 175							℃

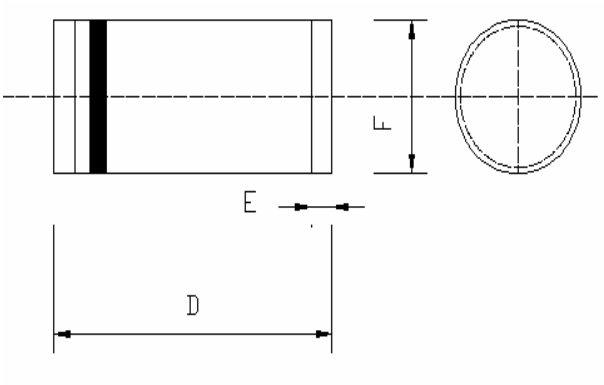
NOTES: 1.Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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.

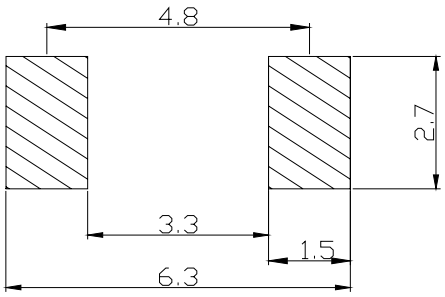
Surface Mount Rectifiers — *SUF4001--SUF4007*

PACKAGE OUTLINE DIMENSIONS



DO-213AB		
Dim	Min	Max
D	4.70	5.20
E	0.25	0.55
F	2.45	2.85
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
SUF4001--SUF4007	DO-213AB	5000/Tape&Reel

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SUF4001--SUF4007

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

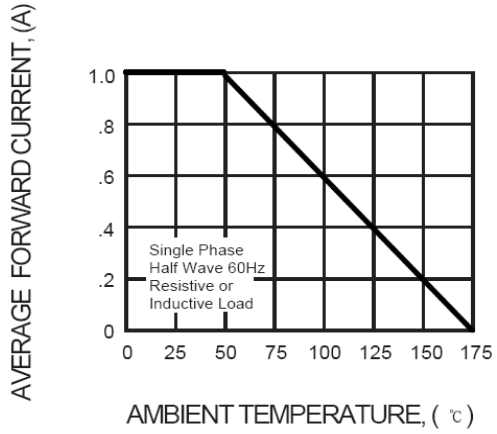


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

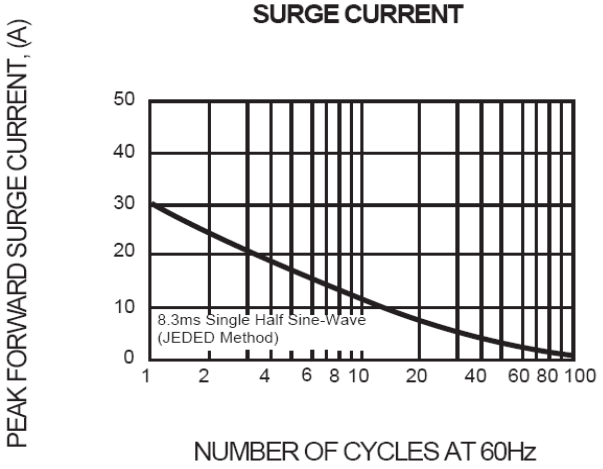


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

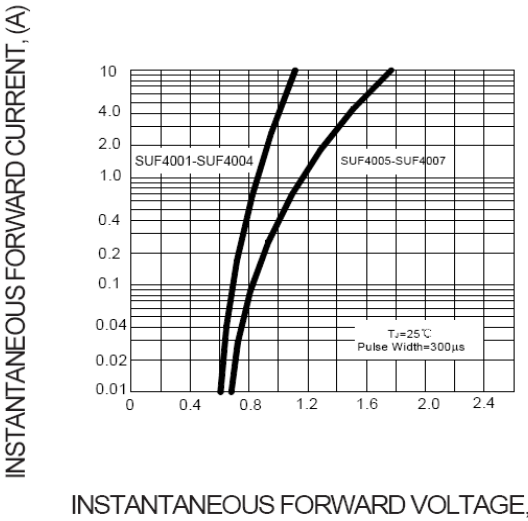


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

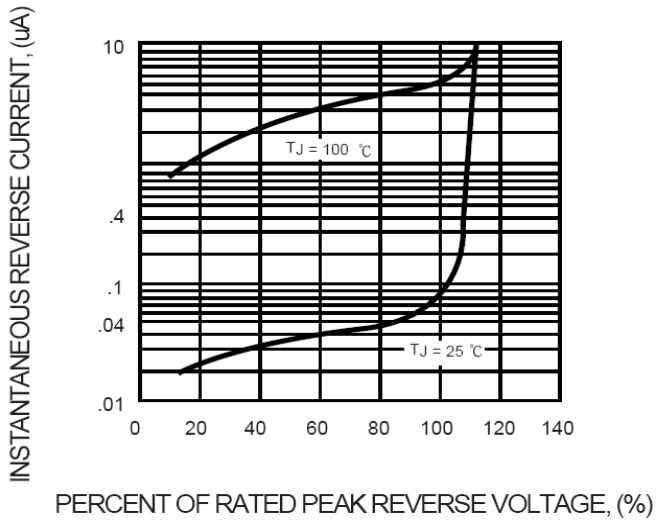
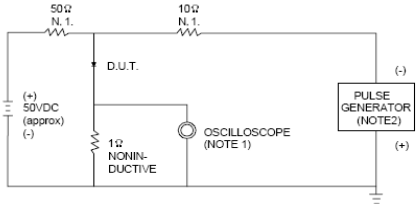
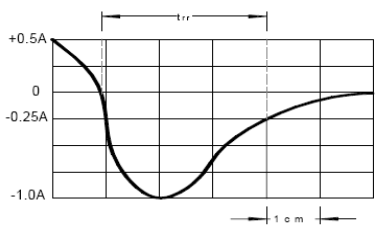


FIG.5 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





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

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