SURFACE MOUNT RECTIFIER

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 1.0 A

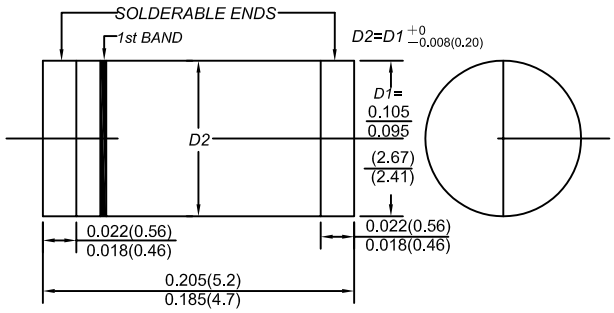
FEATURES

- ◇ Glass passivated device
- ◇ Ideal for surface mounted applications
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Alcohol,Isopropnol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC DO-213AB,molded plastic
- ◇ Terminals: Solderable per MIL- STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.0046 ounces, 0.116 grams
- ◇ Mounting position: Any

DO-213AB



1st band denotes type and positive end (cathode)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SM4933	SM4934	SM4935	SM4936	SM4937	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forward rectified current @T_A=55℃	$I_{(AV)}$	1.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	30					A
Maximum instantaneous forward voltage @1.0A	V_F	1.2					V
Maximum reverse current @T_A=25℃	I_R	5.0					μA
at rated DC blocking voltage @T_A=125℃		100					
Maximum reverse recovery time (Note1)	t_{rr}	200					ns
Typical junction capacitance (Note2)	C_j	15					pF
Maximum thermal resistance (Note3)	$R_{\theta JL}$	30					℃/W
Maximum thermal resistance (Note4)	$R_{\theta JA}$	75					℃/W
Operating junction temperature range	T_j	-55 --- + 150					℃
Storage temperature range	T_{STG}	-55 --- + 150					℃

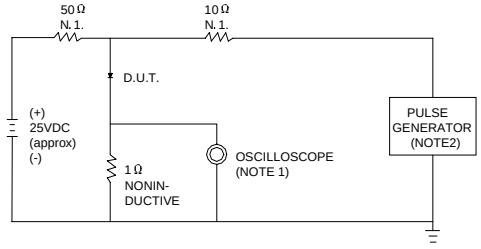
NOTE: 1. Test conditions:I_F=1.0A,V_R=30V.

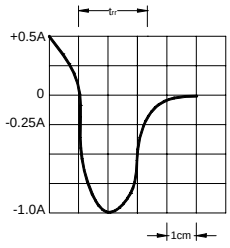
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to terminal 6.0mm^2 copper pads to each terminal.

4. Thermal resistance junction to ambient 6.0mm^2 copper pads to each terminal.

FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 80ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

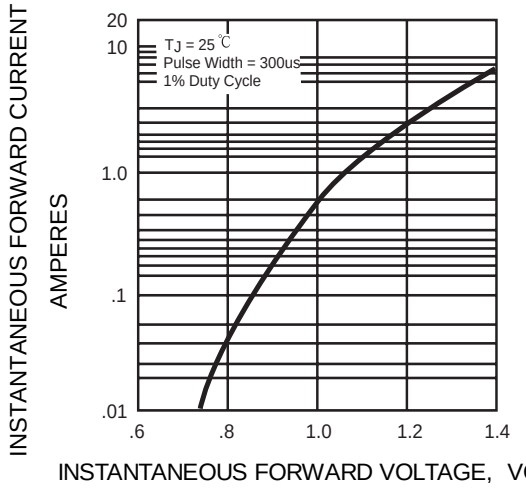


FIG.3 -- FORWARD DERATING CURVE

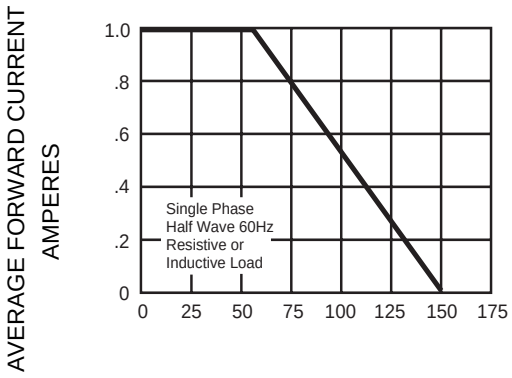


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

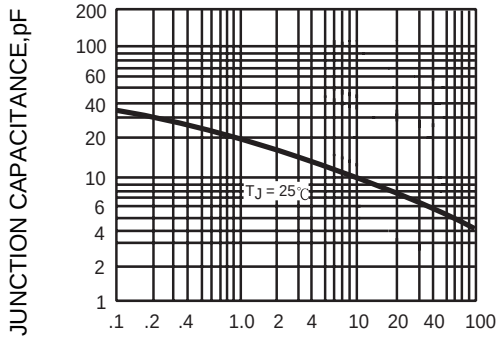


FIG.5 -- PEAK FORWARD SURGE CURRENT