



SM4933-SM4937

Surface Mount Rectifiers

VOLTAGE RANGE: 50 --- 600 V

CURRENT: 1.0 A

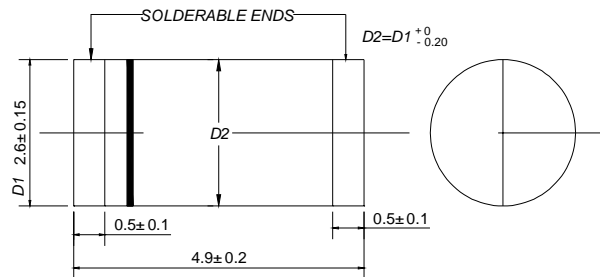
DO-213AB

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
- Polarity: Color band denotes cathode
- Weight: 0.0046 ounces, 0.116 grams
- Mounting position: Any



Dimensions in millimeters

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%.

		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 @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	I_R	5.0 100					μA
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					

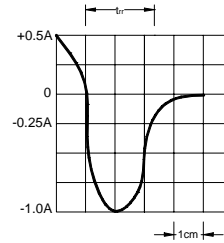
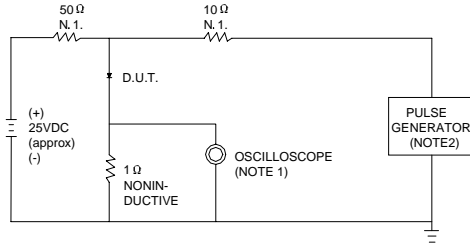
NOTE: 1. Test conditions: $I_F=1.0A, V_R=30V$.

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

3. Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.

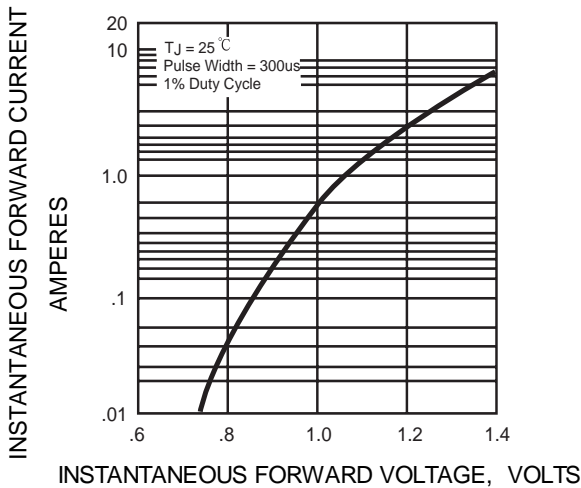
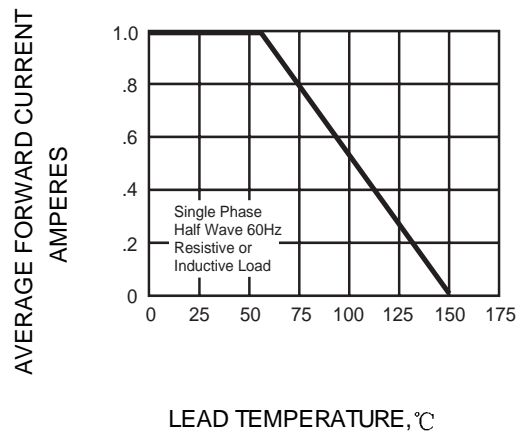
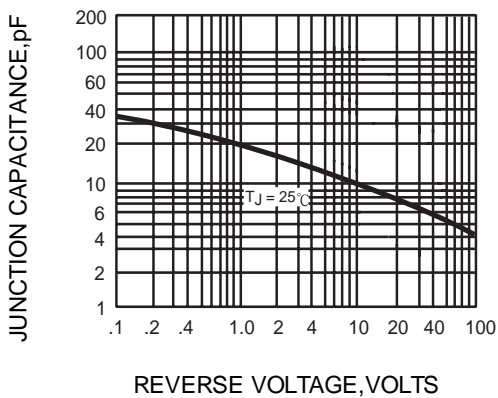
4. Thermal resistance junction to ambient 6.0mm² copper pads to each terminal.

Ratings AND Characteristic Curves

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
