

### SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE: 50 --- 600 V

CURRENT: 1.0 A

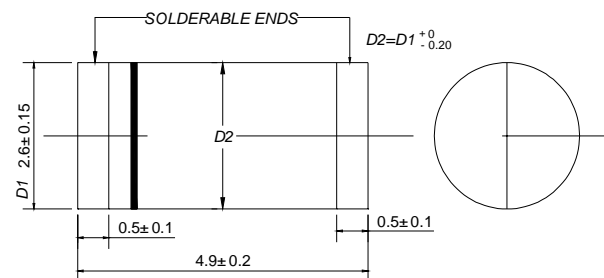
#### FEATURES

- 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



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					$\mu A$
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:  $I_F=1.0A, V_R=30V$ .

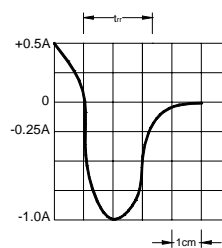
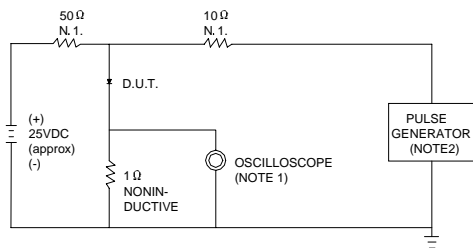
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to terminal 6.0mm<sup>2</sup> copper pads to each terminal.

4. Thermal resistance junction to ambient 6.0mm<sup>2</sup> copper pads to each terminal.

www.galaxycn.com

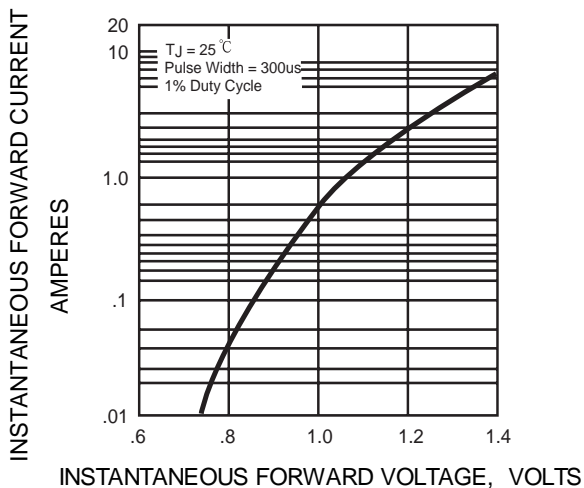
**FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



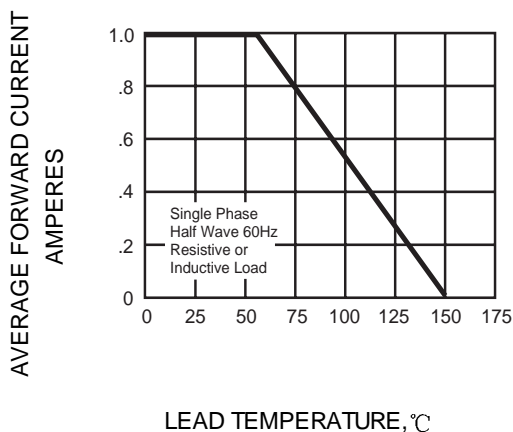
NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ. 22pF.  
 2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 Ω.

SET TIME BASE FOR 80ns/cm

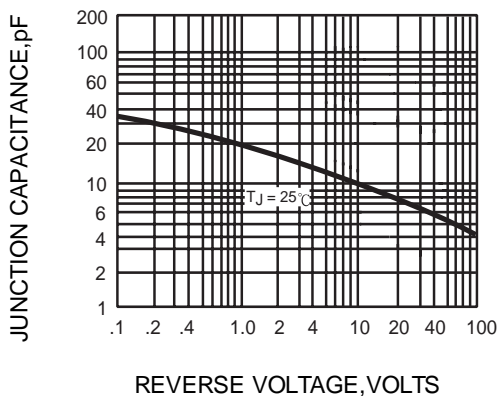
**FIG.2 -- TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 -- FORWARD DERATING CURVE**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**



**FIG.5 -- PEAK FORWARD SURGE CURRENT**

