SM4933 THRU SM4937

SURFACE MOUNT GLASS PASSIVATED FAST RECOVERY SILICON RECTIFIERS Reverse Voltage - 50 to 600 V Forward Current - 1 A

Features

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

Mechanical Data

- Case: MELF (DO-213AB) molded plastic
- Mounting position: Any



Plastic case MELF (DO-213AB) Dimensions in mm

Absolute Maximum Ratings and 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%.

Parameter	Symbols	SM4933	SM4934	SM4935	SM4936	SM4937	Units
Maximum Repetitive 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 (at T_A = 55 $^{\circ}C$)	I _{F(AV)}	1					А
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30					А
Maximum Forward Voltage at 1 A	V _F	1.2					V
	I _R	5 100					μA
Maximum Reverse Recovery Time 4)	t _{rr}	200					ns
Typical Junction Capacitance 1)	CJ	15					pF
Maximum Thermal Resistance	$\begin{array}{c} R_{\theta JA} \\ R_{\theta JL} \end{array}$	30 ²⁾ 75 ³⁾					°C/W
Operating and Storage Temperature Range	T_{j} , T_{stg}	- 65 to + 175					°C

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V DC.

²⁾ Thermal resistance junction to terminal 6 mm² copper pads to each terminal.

³⁾ Thermal resistance from junction to ambient 6 mm² copper pads to each terminal.

 $^{\rm 4)}$ Test conditions: $I_{\rm F}$ = 1 A, $V_{\rm R}$ = 30 V.





1.0 2 4 10 20 40 REVERSE VOLTAGE, (V)

100

2

1

.1

.2

.4



