

1SS181

PRV : 85 Volts
Io : 100 mA

FEATURES :

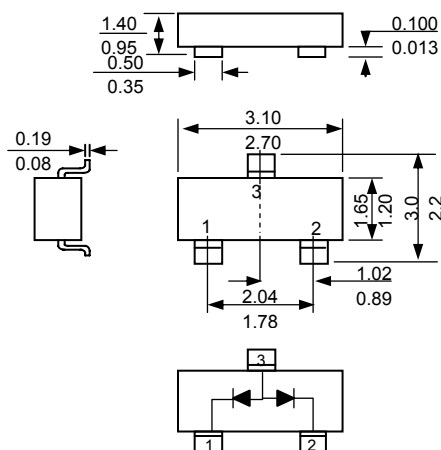
- * Small package
- * Low forward voltage
- * Fast reverse recovery time
- * Small total capacitance
- * Ultra high speed switching application
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOT-23 plastic Case
- * Marking Code : A3

SILICON EPITAXIAL PLANAR DIODE

SOT-23



Dimensions in millimeters

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (Ta =25 °C)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	85	V
Reverse Voltage	V_R	80	V
Maximum Peak Forward Current	I_{FM}	300	mA
Average Forward Current	$I_{F(AV)}$	100	mA
Surge Current (10 ms)	I_{FSM}	2	A
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{STG}	-55 to +125	°C

ELECTRICAL CHARACTERISTICS (Ta =25 °C)

Parameter	Test Condition	Symbol	Min.	TYP	Max.	Unit
Forward Voltage	$I_F = 1 \text{ mA}$	V_F	-	0.61	-	V
	$I_F = 10 \text{ mA}$		-	0.74	-	
	$I_F = 100 \text{ mA}$		-	0.92	1.2	
Reverse Current	$V_R = 30 \text{ V}$	I_R	-	-	0.1	μA
	$V_R = 80 \text{ V}$		-	-	0.5	
Total Capacitance	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_T	-	2.2	4	pF
Reverse Recovery Time	$I_R = 10 \text{ mA}$	T_{rr}	-	1.6	4	ns

RATINGS AND CHARACTERISTIC CURVES (1SS181)

FIG.1 - FORWARD CURRENT VS. FORWARD VOLTAGE

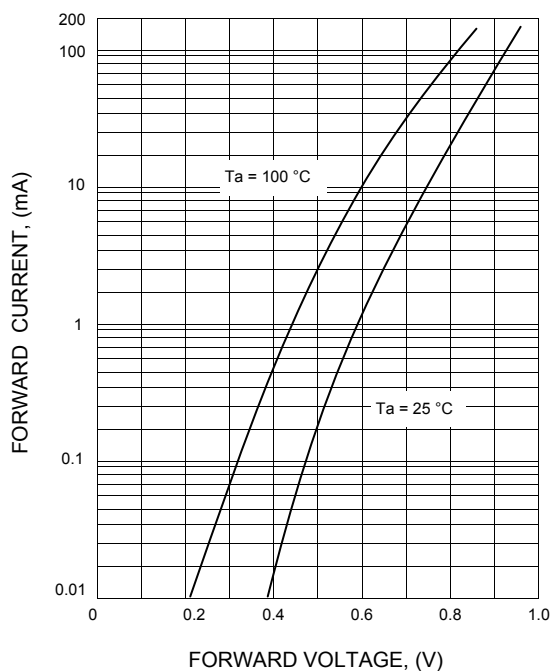


FIG.2 - REVERSE CURRENT VS. REVERSE VOLTAGE

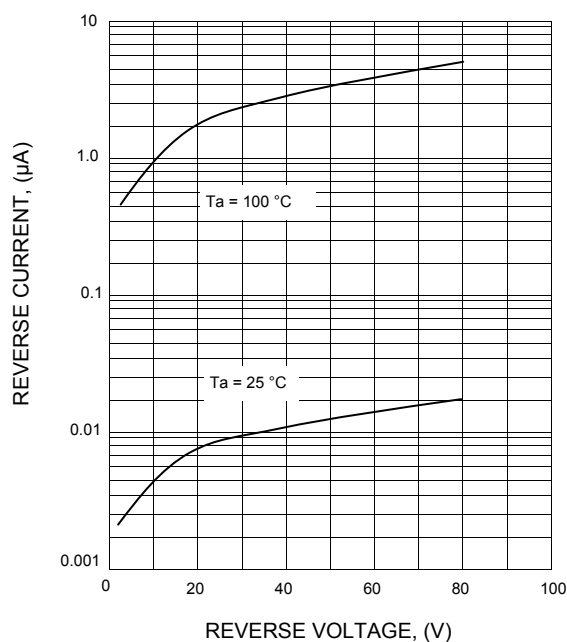


FIG.3 - TOTAL CAPACITANCE VS. REVERSE VOLTAGE

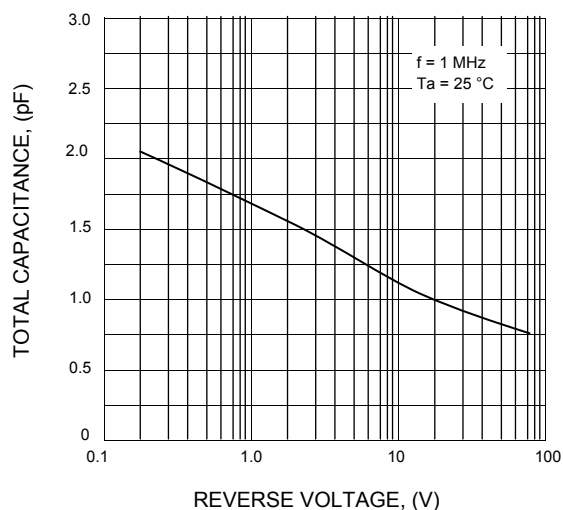


FIG.4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT

