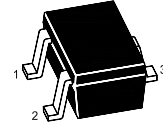
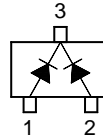


## Silicon Epitaxial Planar Switching Diode

### Features

- Fast switching diode
- Ultra small surface mount package



SOT-323 Plastic Package

Marking Code: **A4**

### Absolute Maximum Ratings ( $T_a = 25\text{ °C}$ )

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Continuous Forward Current Single diode loaded Double diode loaded	$I_F$	175 100	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-repetitive Peak Forward Surge Current at $t = 1\text{ s}$ at $t = 1\text{ ms}$ at $t = 1\text{ }\mu\text{s}$	$I_{FSM}$	0.5 1 4	A
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^{\circ}\text{C}$

### Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{BR(R)}$	75	-	V
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	- - - -	0.715 0.855 1 1.25	V
Reverse Leakage Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$ at $V_R = 75\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	$I_R$	- - - -	30 2.5 60 100	nA $\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Diode Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_{tot}$	-	2	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}, I_{rr} = 0.1 I_R, R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns

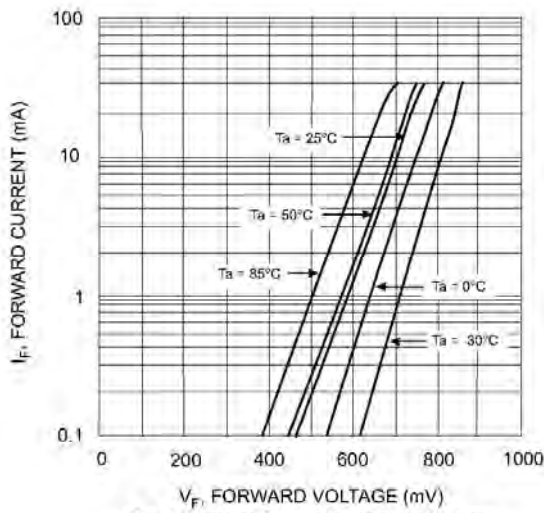


Fig. 1 Forward Current vs. Forward Voltage

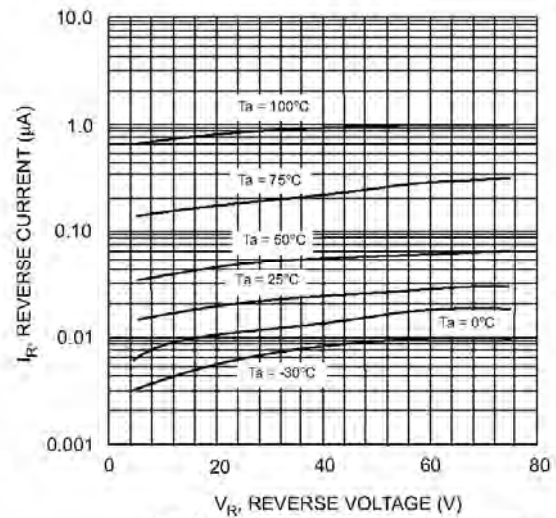


Fig. 2 Reverse Current vs. Reverse Voltage

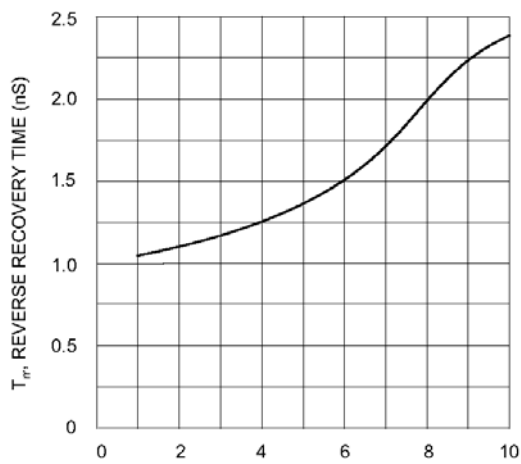


Fig. 3. Reverse Recovery Time vs. Forward Current

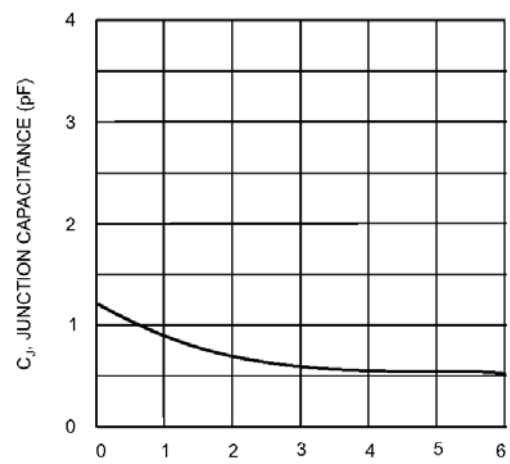


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage