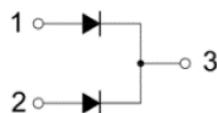


Features

- High switching speed: $t_{rr} \leq 6 \text{ ns}$
- Low leakage current
- Small SMD plastic packages
- High stability and high reliability



Schematic Diagram



SOT-23

Applications

- High-speed switching
- General-purpose switching

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Max.	Unit
Reverse Voltage	V_R	70	V
Power Dissipation	P_D	225	mW
Average Rectified Current	I_O	200	mA
Non-repetitive Peak Forward Current	I_{FM}	400	mA
Peak Forward Surge Current @ $t_p=1\mu\text{s}$; $T_A=25^\circ\text{C}$	I_{FSM}	2.0	A
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Voltage	V_{RB}	$I_B=100\mu\text{A}$	70	-	V
Reverse Leakage Current	I_R	$V_R=70\text{V}$	-	2.5	μA
Forward Voltage	V_F	$I_F=1\text{mA}$	-	0.715	V
		$I_F=10\text{mA}$	-	0.855	
		$I_F=50\text{mA}$	-	1.00	
		$I_F=150\text{mA}$	-	1.25	
Reverse Recovery Time	T_{RR}	$I_F=I_R=10\text{mA}$, $R_L=100\Omega$, $I_{RR}=0.1 \times I_R$	-	6	nS
Capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHZ}$	-	1.5	pF

Ratings and Characteristic Curves

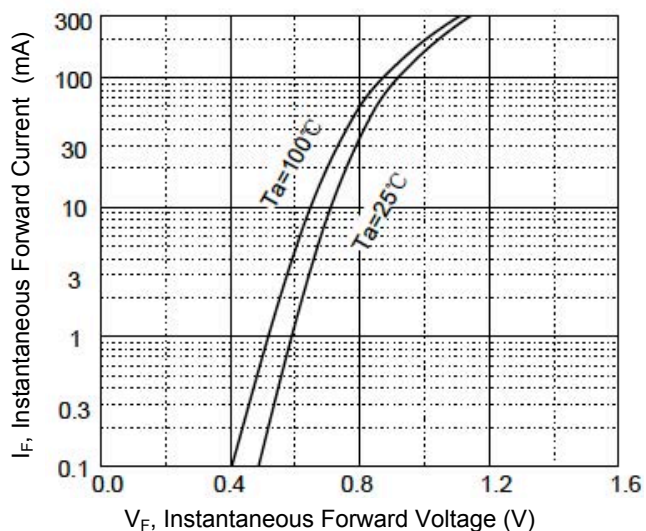


Figure 1. Forward Characteristics

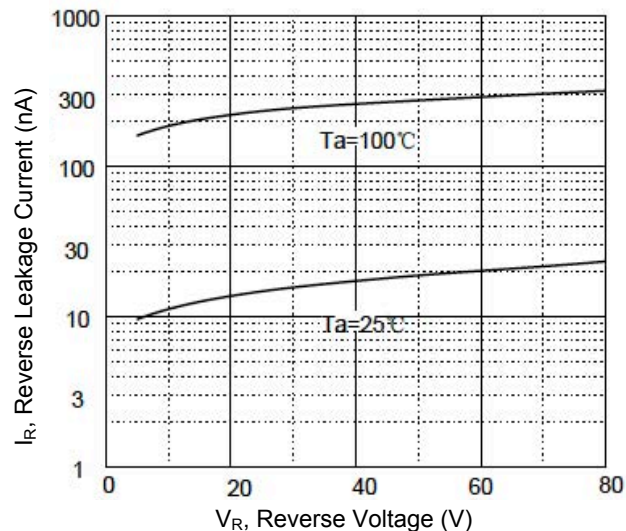


Figure 2. Reverse Characteristics

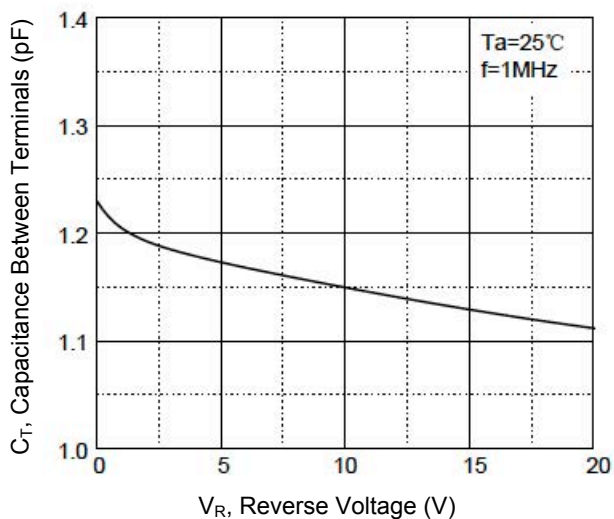


Figure 3. Capacitance Characteristics

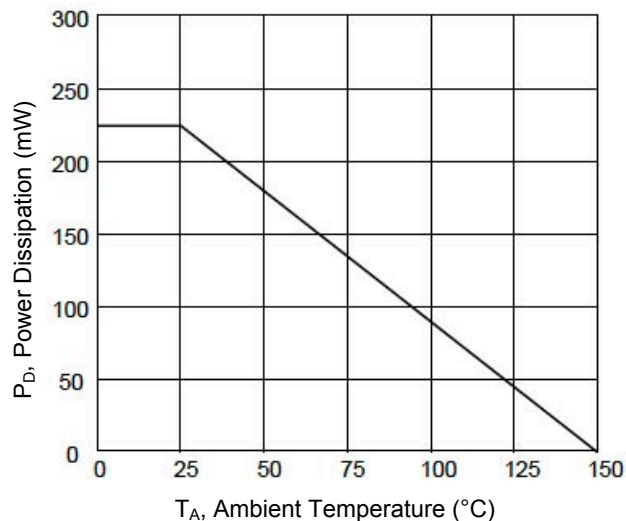
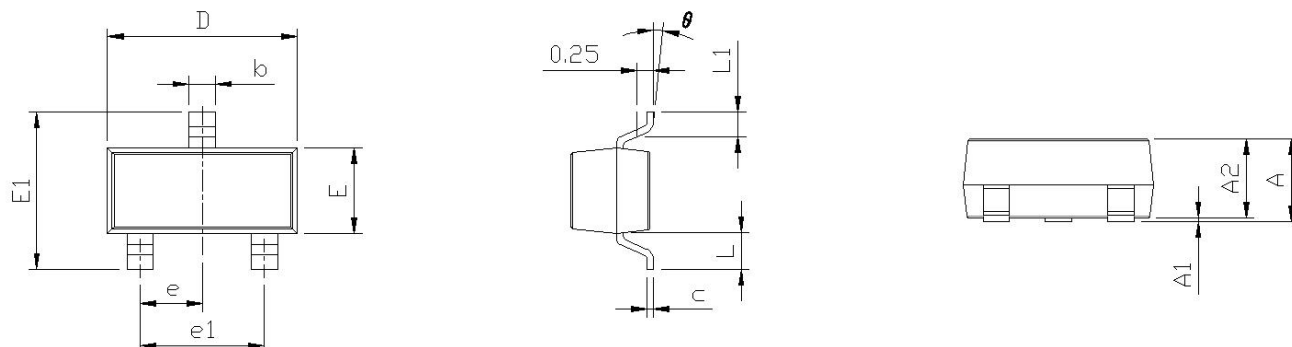


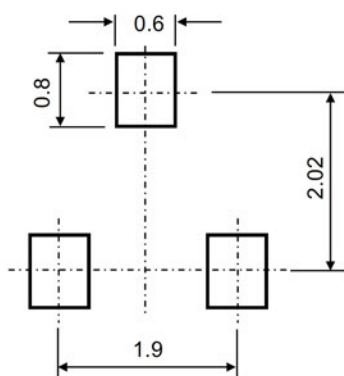
Figure 4. Power Derating Curve

Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

For more information, please contact us at: inquiry@goodarksemi.com