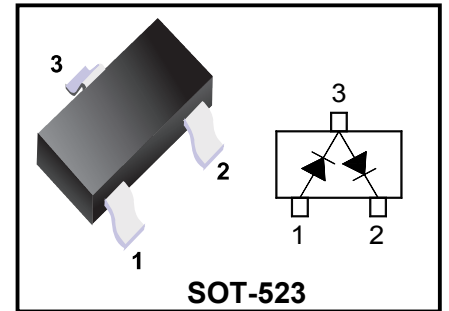


Switching Diodes



Features

- Fast Switching Speed
- For General Purpose Switching Applications.
- High Conductance

Marking

Marking	A7
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Absolute Maximum Ratings (Ta = 25°C)

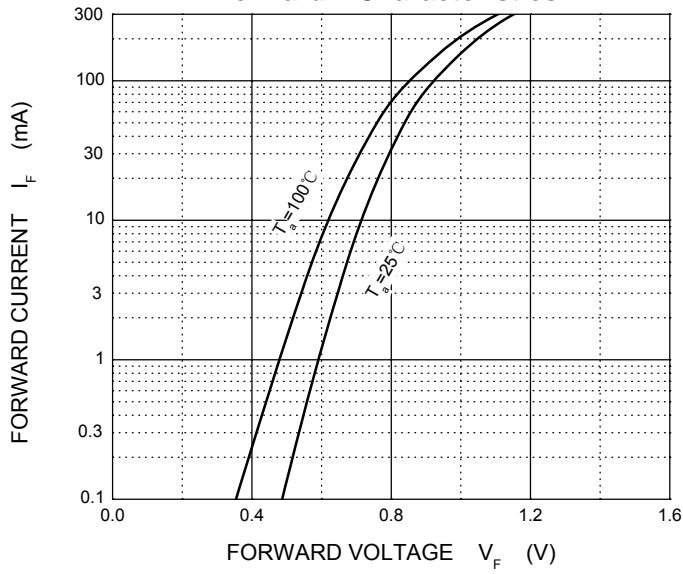
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse Voltage	V_R	75	V
Continuous Forward Current	$I_{F(AV)}$	150	mA
Single Diode Load Double Diode Load		130	
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
at t = 1 μ s		1	
at t = 1 ms at t = 1 s		0.5	
Total Power Dissipation	P_{tot}	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at Ta = 25°C

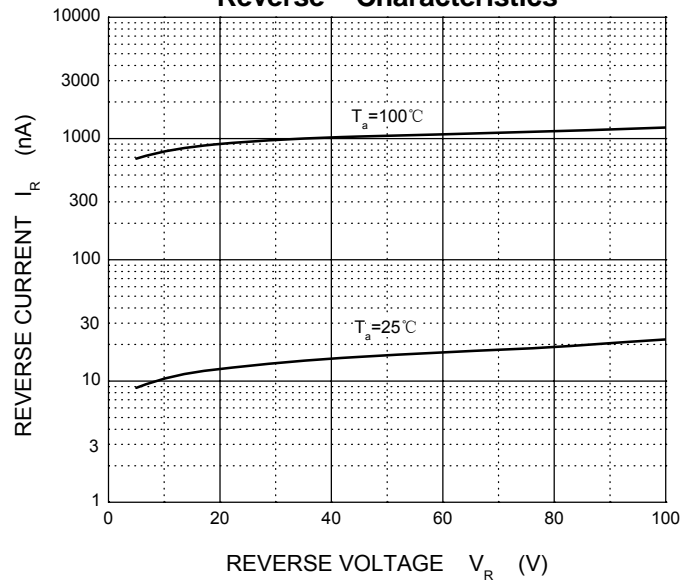
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	V_F	0.715	V
		0.855	
		1	
		1.25	
Reverse Current at $V_R = 25$ V at $V_R = 75$ V at $V_R = 25$ V, $T_j = 150$ °C at $V_R = 75$ V, $T_j = 150$ °C	I_R	30	nA
		1	μ A
		30	μ A
		50	μ A
Total Capacitance at $V_R = 0$, $f = 1$ MHz	C_{tot}	1.5	pF
Reverse Recovery Time at $I_F = I_R = 10$ mA, $I_{rr} = 0.1 \times I_R$, $R_L = 100 \Omega$	t_{rr}	4	ns

Typical Characteristics

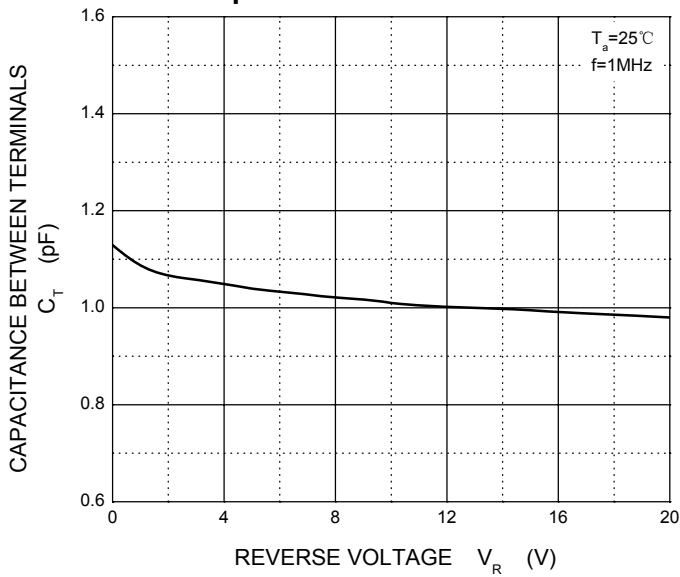
Forward Characteristics



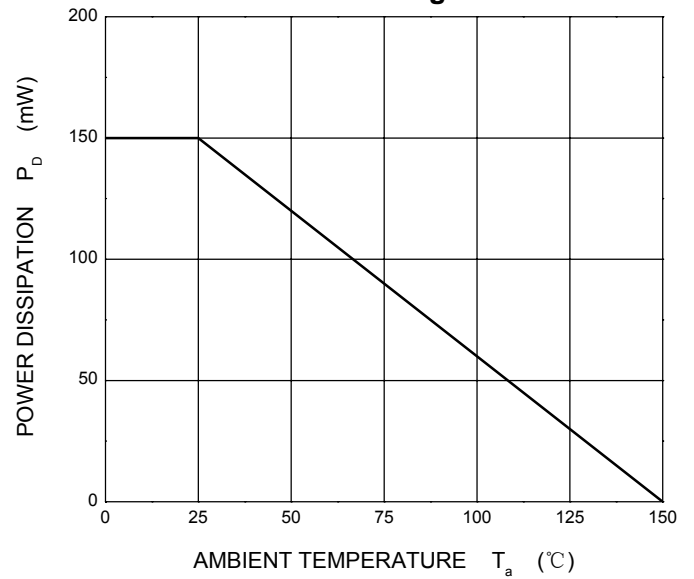
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



Ordering information

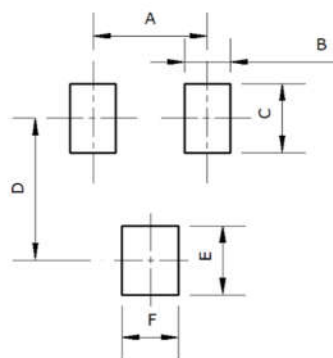
Package	Packing Description	Base Quantity	Packing Quantity
SOT-523	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-523

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	1.50	1.70	59	67
B	0.75	0.85	30	33
C	1.45	1.75	57	69
D	0.50TYP		0.020TYP	
E	0.90	1.10	35	43
G	0.00	0.10	0	4
H	0.60	0.80	24	31
J	0.10	0.20	4	8
K	0.15	0.35	6	14
L	0.26	0.46	10	18

The recommended mounting pad size



Millimeter (mm)	
Dim.	TYP
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50

Disclaimer

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