

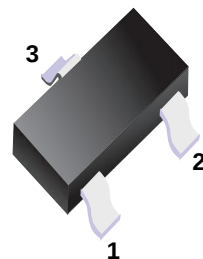
Switching Diodes

■ Features

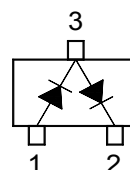
- Fast Switching Speed
- For General Purpose Switching Applications.
- High Conductance

■ Marking

Marking	A7
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■ Simplified outline(SOT-523)



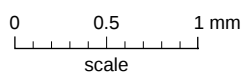
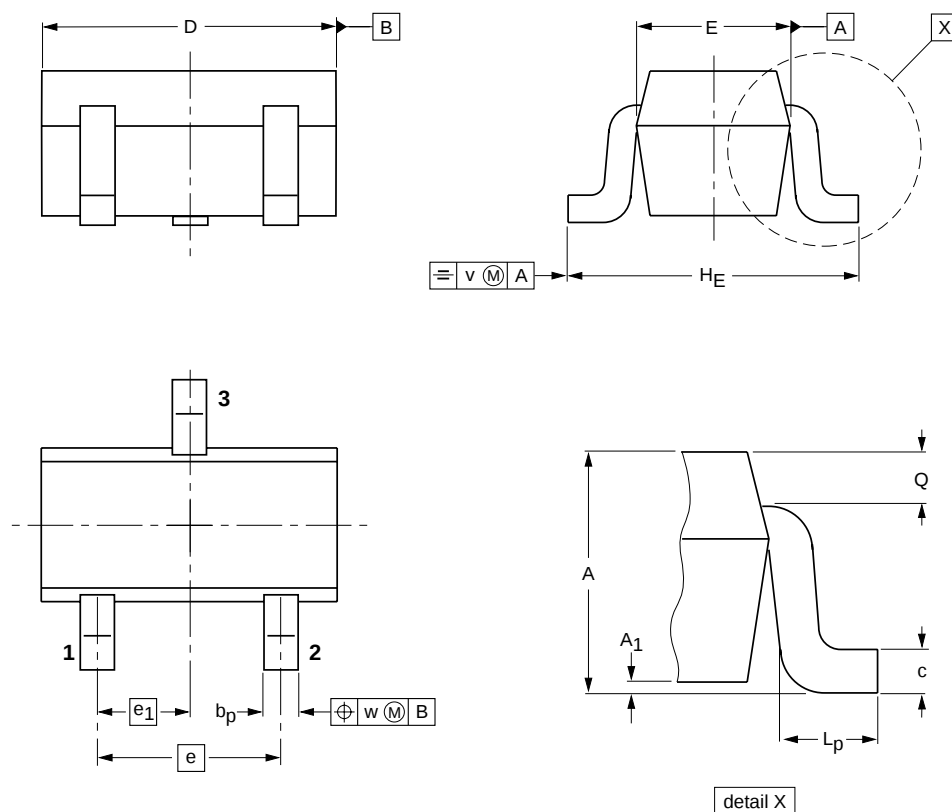
■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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		130	
Double Diode Load			
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
at $t = 1\ \mu\text{s}$		1	
at $t = 1\ \text{ms}$		0.5	
at $t = 1\ \text{s}$			
Total Power Dissipation	P_{tot}	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

■ Characteristics at $T_a = 25^\circ\text{C}$

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

■ SOT-523



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	0.95 0.60	0.1	0.30 0.15	0.25 0.10	1.8 1.4	0.9 0.7	1	0.5	1.75 1.45	0.45 0.15	0.23 0.13	0.2	0.2