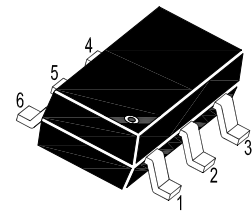
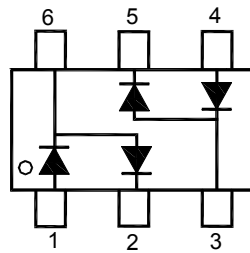


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Silicon Epitaxial Planar Switching Diode



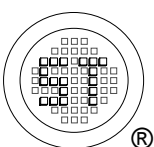
1. A1 2. C1 3. AC2
4. A2 5. C2 6. AC1
Marking Code: **A7**
SOT-363 Plastic package

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	Single Diode Load	150	mA
	Double Diode Load	130	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	at $t = 1 \mu\text{s}$	4	A
	at $t = 1 \text{ms}$	1	A
	at $t = 1 \text{s}$	0.5	A
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

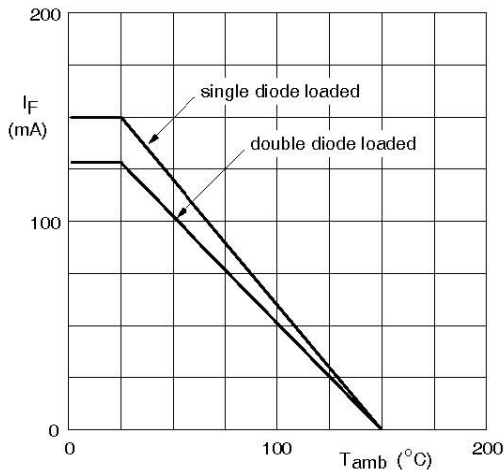
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1 \text{mA}$ at $I_F = 10 \text{mA}$ at $I_F = 50 \text{mA}$ at $I_F = 150 \text{mA}$	V_F	0.715	V
		0.855	
		1	
		1.25	
Reverse Current at $V_R = 25 \text{V}$ at $V_R = 75 \text{V}$ at $V_R = 25 \text{V}, T_j = 150^\circ\text{C}$ at $V_R = 75 \text{V},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



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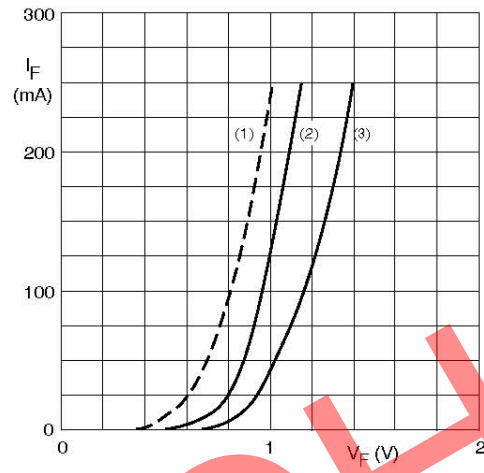


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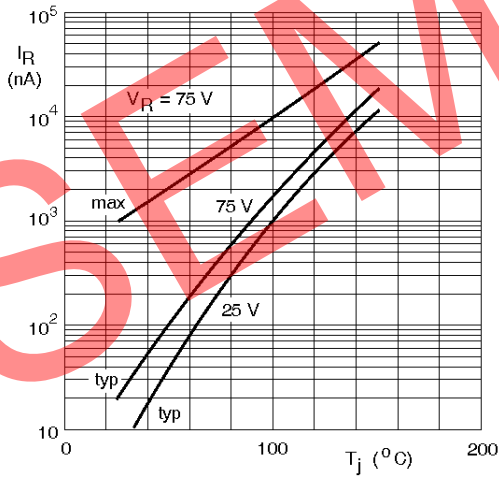
Device mounted on an FR4 printed-circuit board.

Maximum permissible continuous forward current as a function of ambient temperature.

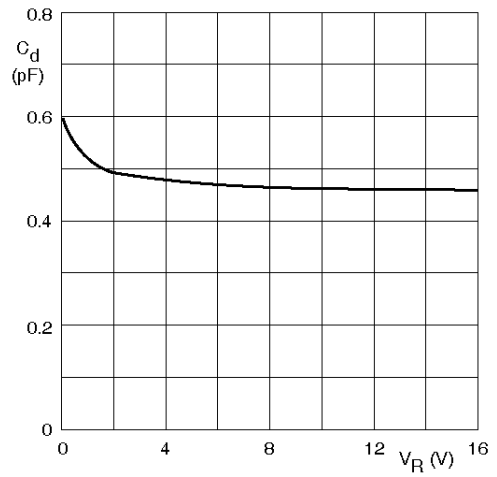


- (1) $T_j = 150$ °C; typical values.
- (2) $T_j = 25$ °C; typical values.
- (3) $T_j = 25$ °C; maximum values.

Forward current as a function of forward voltage.

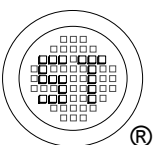


Reverse current as a function of junction temperature.



$f = 1$ MHz; $T_j = 25$ °C.

Diode capacitance as a function of reverse voltage; typical values.



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