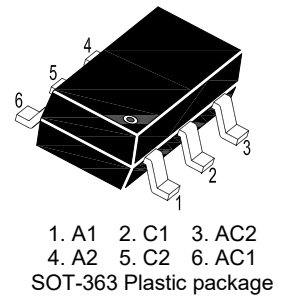
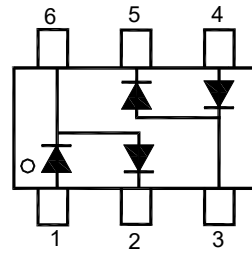


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Silicon Epitaxial Planar Switching Diode



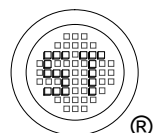
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Continuous Forward Current	I_F	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 $t = 1 \mu\text{s}$		1	
at $t = 1 \text{ ms}$		0.5	
at $t = 1 \text{ s}$			
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	625	$^\circ\text{C/W}$

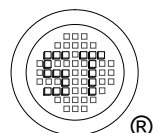
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10\ \mu\text{A}$	$V_{(BR)R}$	100	-	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 Current at $V_R = 25\ \text{V}$ at $V_R = 80\ \text{V}$ at $V_R = 25\ \text{V}$, $T_j = 150^\circ\text{C}$ at $V_R = 80\ \text{V}$, $T_j = 150^\circ\text{C}$	I_R	- - - -	30 0.5 30 50	nA μA μA μA
Diode Capacitance at $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$	C_d	-	1.5	pF
Reverse Recovery Time at $I_F = 10\ \text{mA}$, $I_{rr} = 0.1 \times I_R$, $V_R = 6\ \text{V}$, $R_L = 100\ \Omega$	t_{rr}	-	4	ns



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Electrical Characteristics Curves

Fig 1. Power Derating Curve

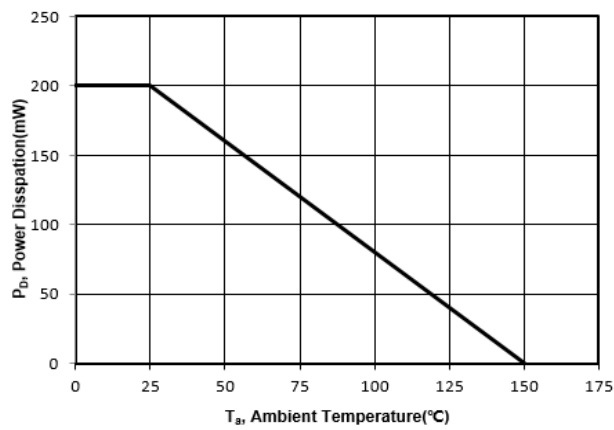


Fig 2. Capacitance Characteristics

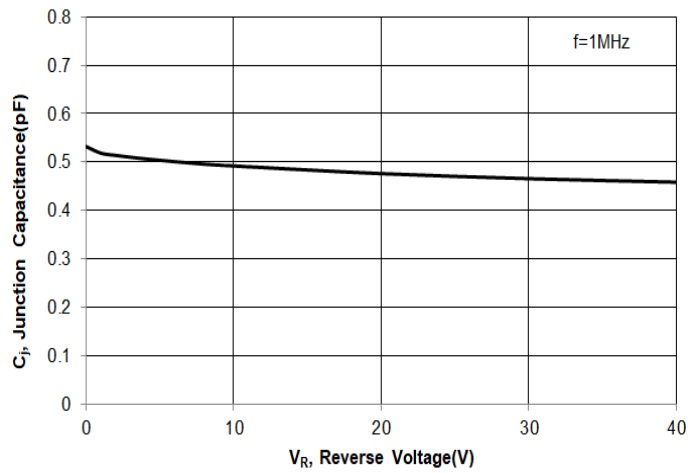


Fig 3. Reverse Characteristics

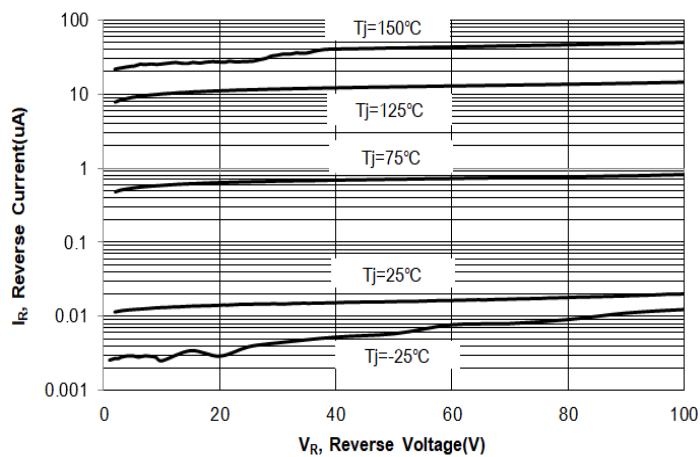
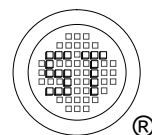
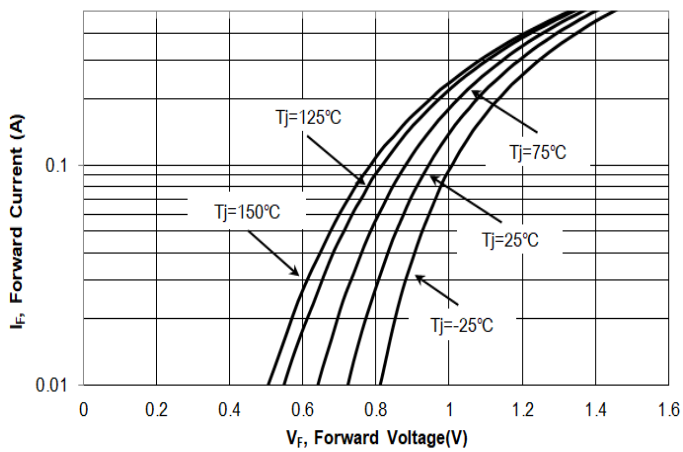


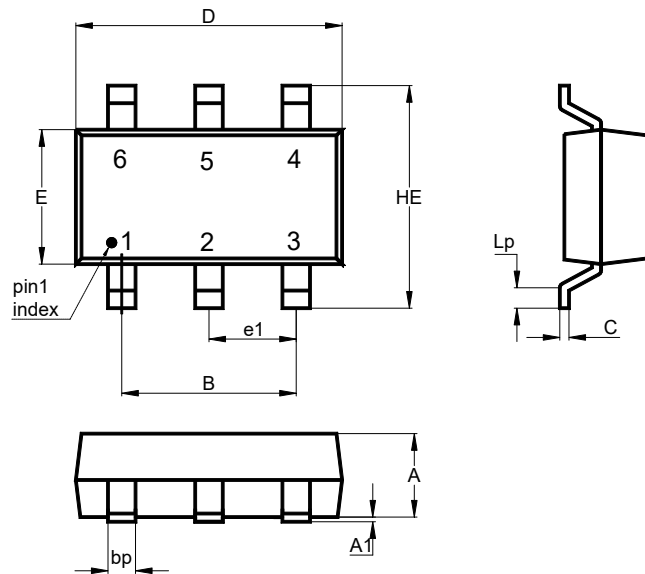
Fig 4. Forward Characteristics



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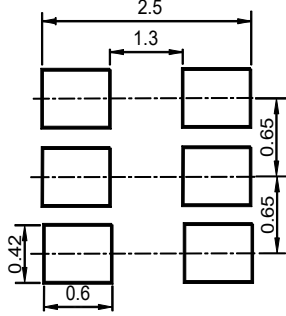
Package Outline (Dimensions in mm)

SOT-363



Unit	A	A1	B	C	D	E	e1	HE	Lp	bp
mm	1.0 0.9	0.1 0	1.3 typ.	0.25 0.1	2.2 1.8	1.35 1.15	0.65 typ.	2.2 2.0	0.4 0.15	0.3 0.1

Recommended Soldering Footprint

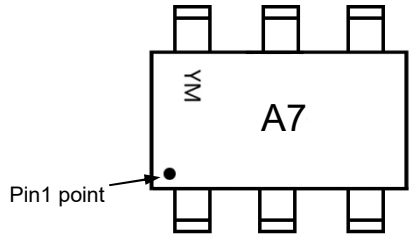


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-363	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" A7 " = Part No.
"YM" = Date Code Marking
"Y" = Year
"M" = Month
Font type: Arial



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