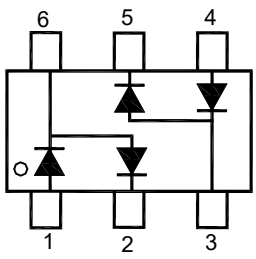
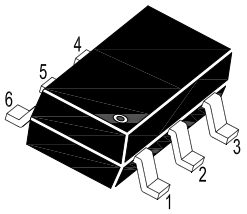
Silicon Epitaxial Planar Switching Diode





1. A1 2. C1 3. AC2
4. A2 5. C2 6. AC1
SOT-363 Plastic package

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Reverse Voltage		V_R	100	V
Continuous Forward Current	Single Diode Load Double Diode Load	I_F	150 130	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	at t = 1 μs at t = 1 ms at t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation [1]		P_D	200	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1]	$R_{\theta JA}$	625	℃/W

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

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	100	-	V
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 0.855 1 1.25	V
Reverse Current at V_R = 25 V at V_R = 80 V at V_R = 25 V, T_j = 150℃ at V_R = 80 V, T_j = 150℃	I_R	 - - - -	 30 0.5 30 50	 nA μA μA μA
Diode Capacitance at V_R = 0, f = 1 MHz	C_d	-	1.5	pF
Reverse Recovery Time at I_F = 10 mA, I_{rr} = 0.1 X I_R , V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

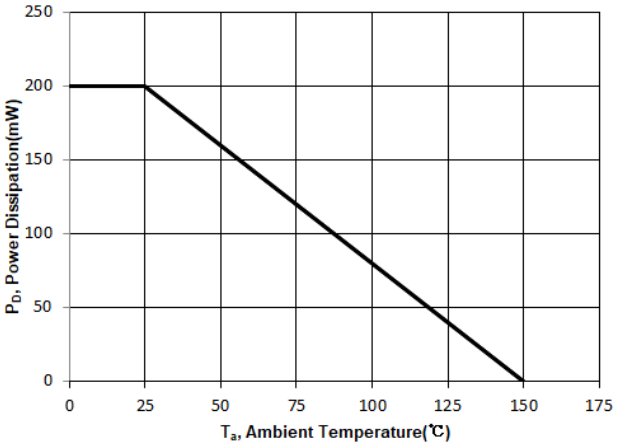


Fig 2. Total Capacitance vs. Reverse Voltage

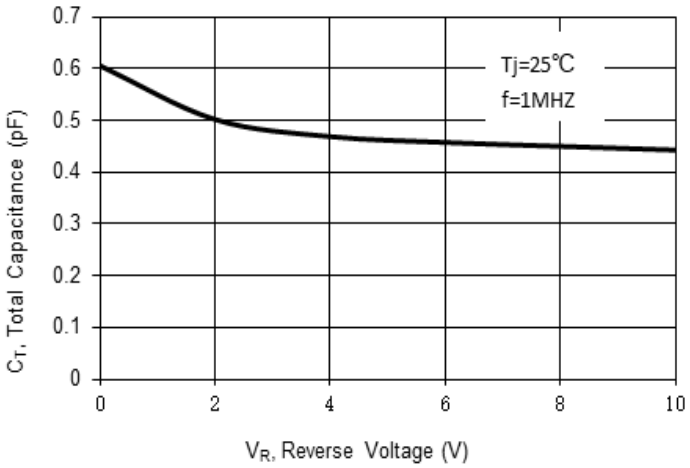


Fig 3. Reverse Characteristics

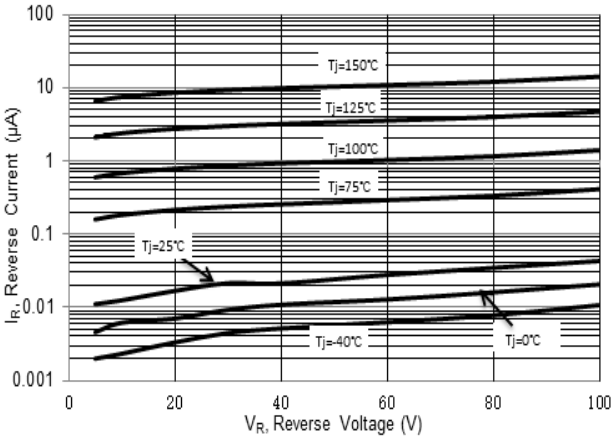
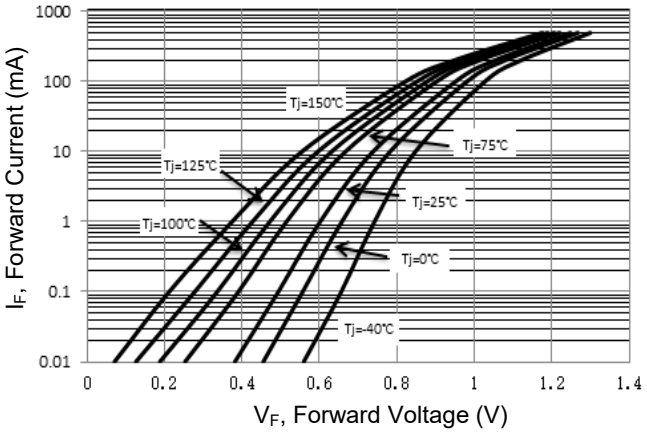
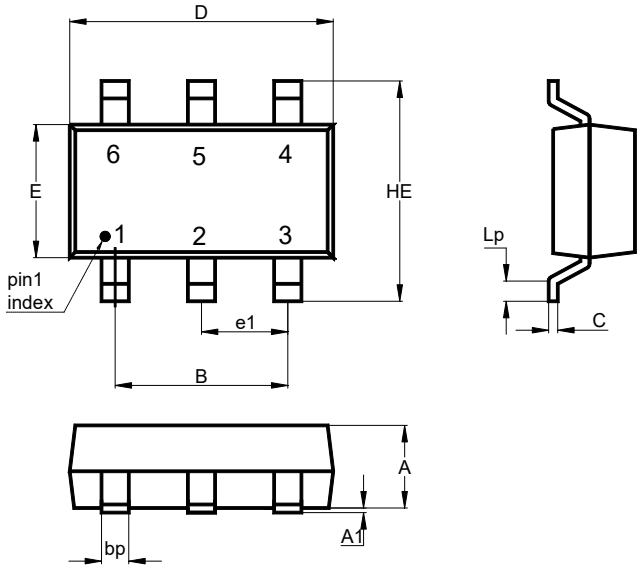


Fig 4. Forward Characteristics

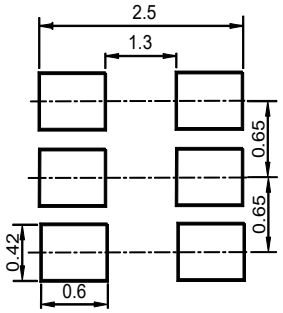


Package Outline (Dimensions in mm) SOT-363



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

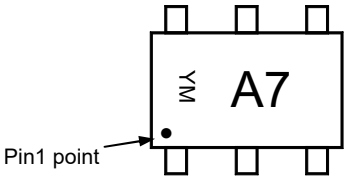


Packing information

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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