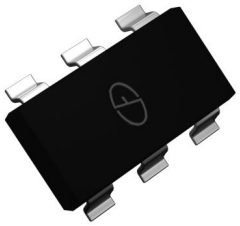
Switching Diode

Features

- Fast Switching Speed
- Power Dissipation of 200mW
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- RoHS Compliant

RoHS
COMPLIANT

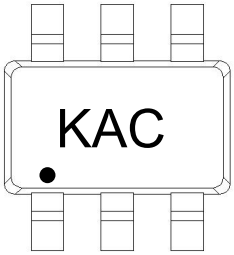


Marking: .KAC

SOT-363

Applications

- Electronic computer
- Pulse
- Switching circuit

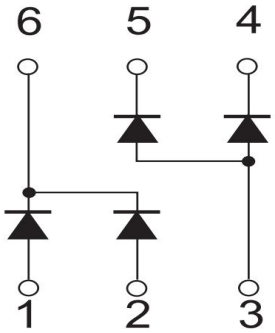


Mechanical Data

- Package: SOT-363
- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

Pin definition

Epuivalent circuit

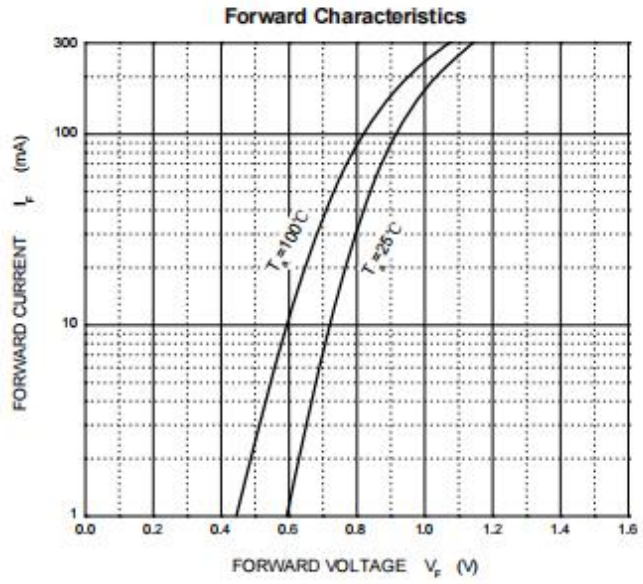


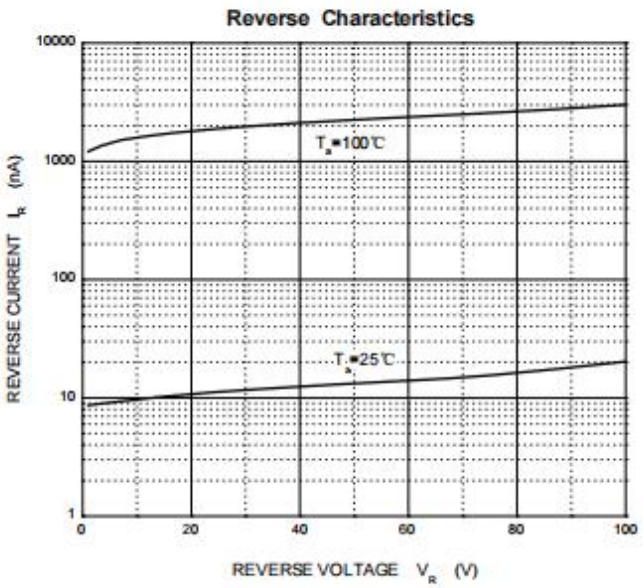
Maximum Ratings & Electrical Characteristics(T_A=25℃ unless otherwise noted)			
Parameter	**Symbol**	**Value**	**Unit**
Repetitive Peak Reverse voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}	75	V
Reverse voltage	V_R	75	V
Average rectified output current	I_O	150	mA
Non-repetitive pak frward crrent	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	2	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	℃/W
Junction temperature Range	T_J	-55 ~ +150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

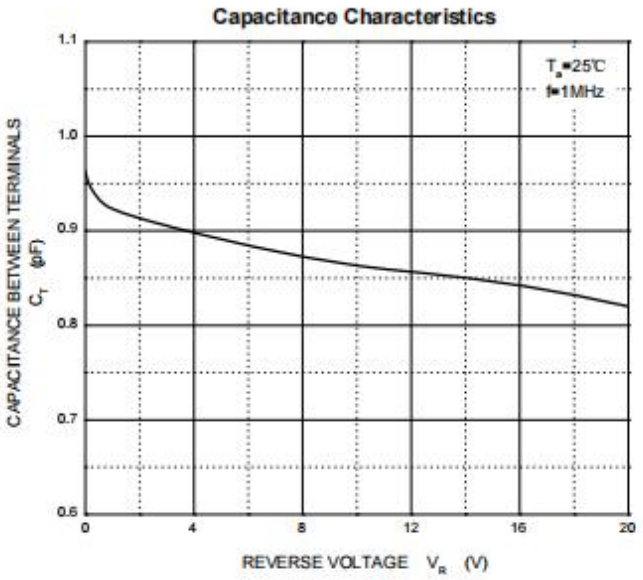
Electrical Specifications(T_A=25℃ unless otherwise noted)					
Parameter	**Symbol**	**Test Conditions**	**Limits**		**Unit**
			Min	**Max**	
Reverse Breakdown Voltage	V_{BR}	I_R = 2.5μA	75		V
Reverse Leakage Current	I_R	V_R = 20V		25	nA
		V_R = 75V		2.5	uA
Forward Voltage	V_F	I_F = 1.0mA		0.715	V
		I_F = 10mA		0.855	V
		I_F = 50mA		1	V
		I_F = 150mA		1.25	V
Junction Capacitance	C_J	V_R = 0, f = 1.0MHz		2	pF

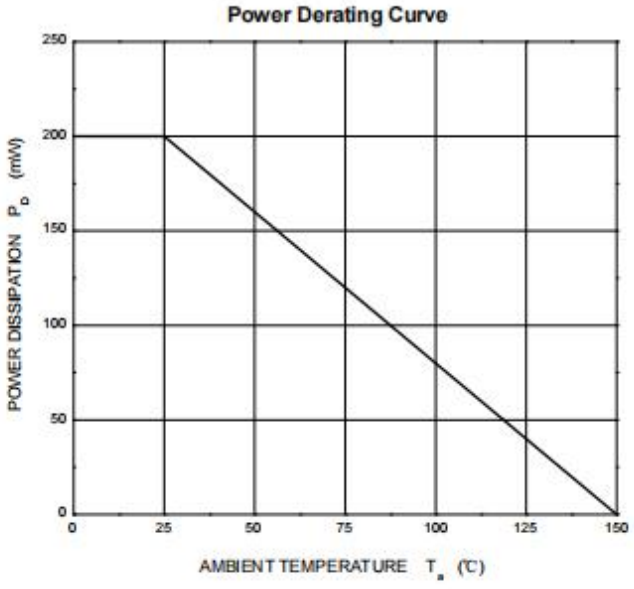
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)



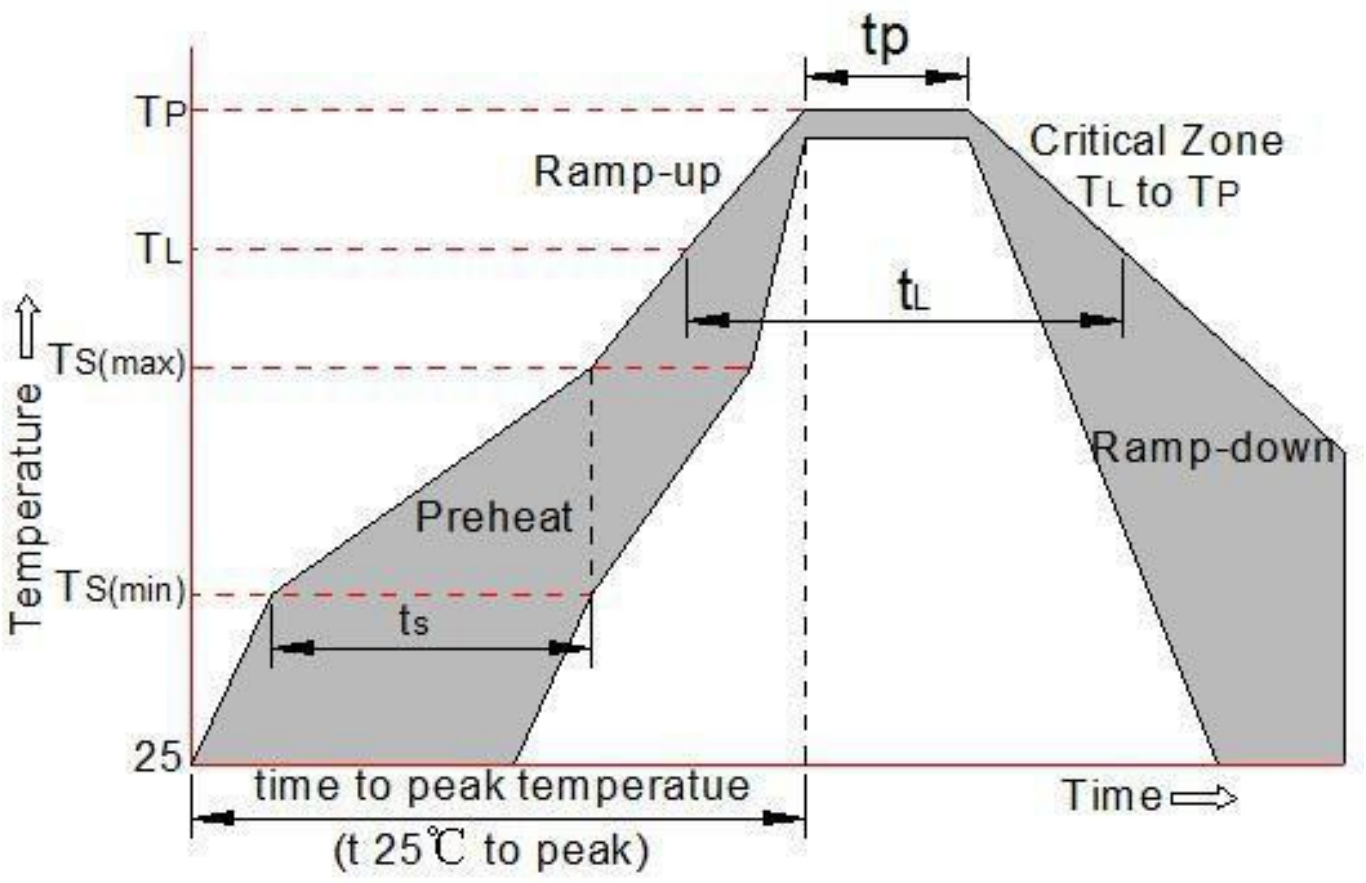






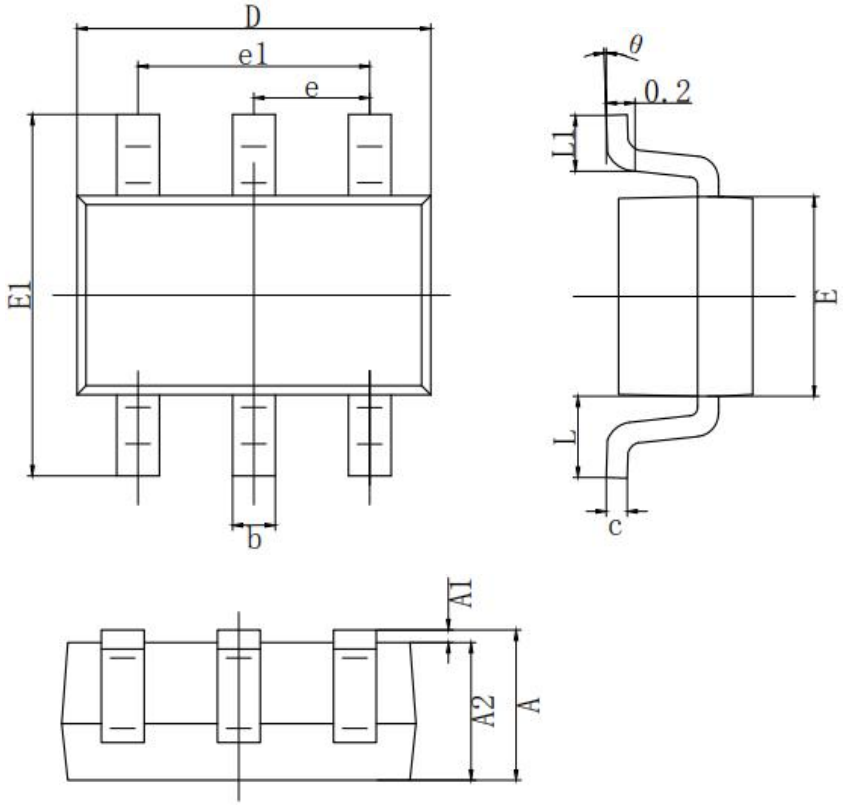
Soldering Parameters

Reflow Condition		Pb -Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 ℃
	-Temperature Max($T_{s(max)}$)	+200 ℃
	-Time (Min to Max) (ts)	60 -180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃ /sec. Max
$T_{s(max)}$ to T_L - Ramp -up Rate		3℃ /sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217 ℃
	-Temperature(t_L)	60 -150 secs.
Peak Temp (T_p)		+260(+0/ -5) ℃
Time within 5 ℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp -down Rate		6℃ /sec. Max
Time 25 ℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 ℃



Package Outline Dimensions

millimeters



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.06.13	First issue

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