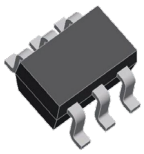
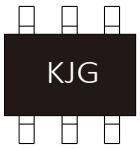
FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance



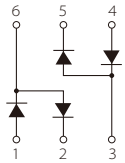
SOT-363



Marking

MECHANICAL DATA

- SOT-363 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS (T_A=25°C)

Parameter		Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage		V_{RRM}	75	V
Working Peak Reverse Voltage		V_{RWM}	75	V
DC Blocking Voltage		V_R	75	V
Forward Continuous Current		I_{FM}	300	mA
Average Rectified Output Current		I_O	150	mA
Non-repetitive Peak Forward SurgeC urrent	@ t = 1.0μs	I_{FSM}	2	A
	@ t = 1.0s		1	A
Power Dissipation		P_D	200	mW
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	625	℃/W
Operating Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-55 to 150	℃

ELECTRICAL CHARACTERISTICS(T_A=25°C)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Voltage	I_R = 100uA	$V_{(BR)}$	75		V
Reverse Leakage Current	V_R = 75V	I_R		2.5	μA
	V_R =20V			0.025	μA
Forward Voltage	I_F =1mA	V_F		0.715	V
	I_F =10mA			0.855	V
	I_F =50mA			1.000	V
	I_F =150mA			1.250	V
Capacitance	V_R=0V, f=1MHz	C_T		2	pF
Reverse recovery time	I_F=I_R=10mA,R_L=100Ω I_{RR}=0.1×I_R	T_{RR}		4	ns

CHARACTERISTIC CURVES

Fig 1. Forward Characteristics

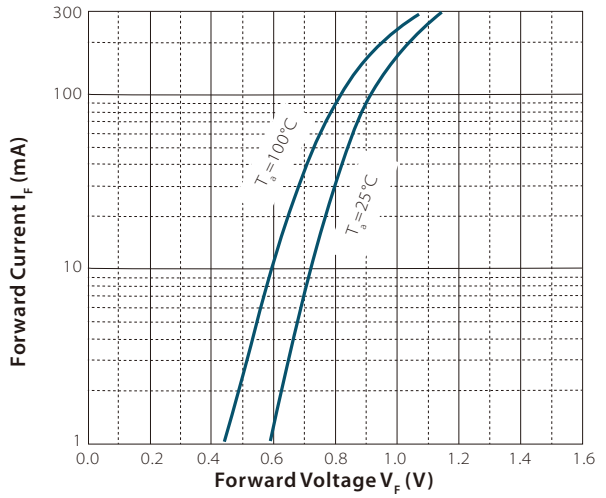


Fig 2. Reverse Characteristics

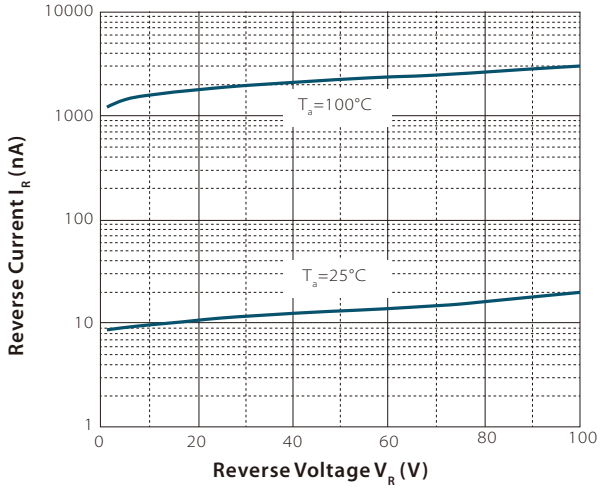


Fig 3. Capacitance Characteristics

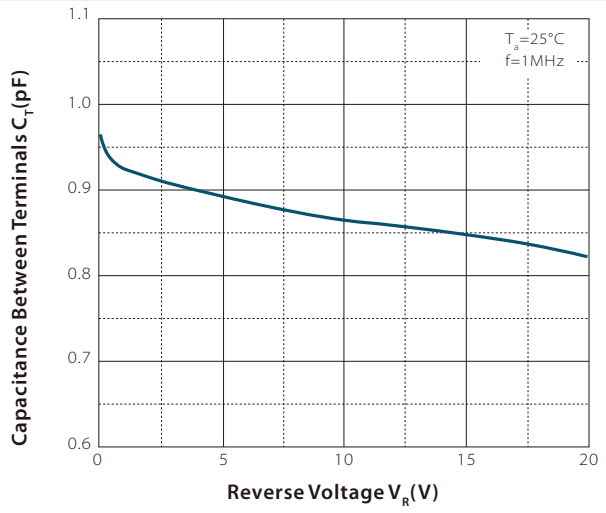
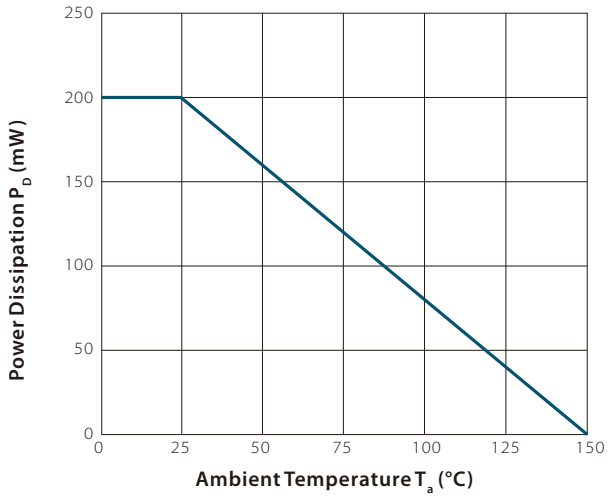
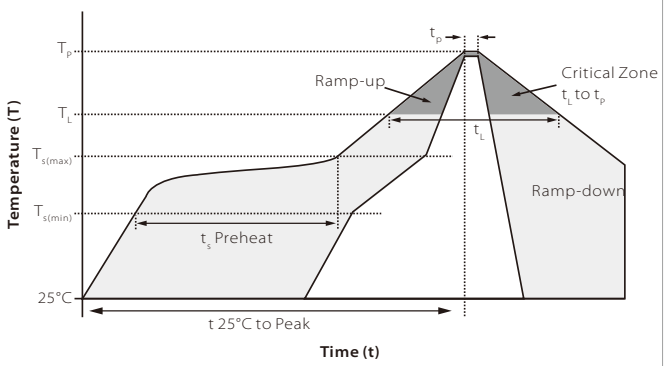


Fig 4. Power Derating Curve

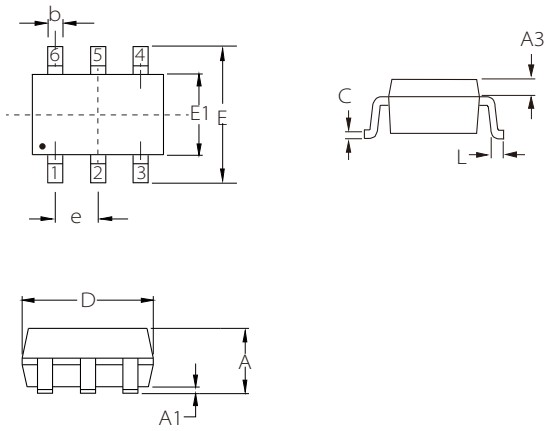


SOLDERING PARAMETERS

Reflow Condition		Lead–free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

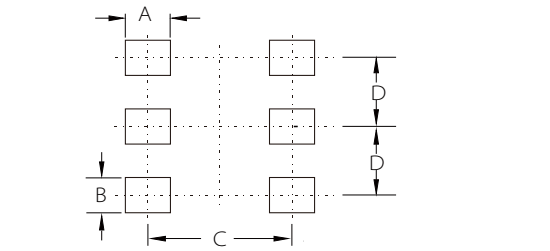


SOT-363 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.800	1.100	0.031	0.043
A1	0.000	0.100	0.000	0.004
A3	0.20REF		0.008REF	
D	1.800	2.200	0.070	0.086
E1	1.150	1.350	0.045	0.053
E	2.000	2.200	0.078	0.086
e	0.65BSC		0.026BSC	
b	0.100	0.300	0.004	0.012
L	0.100	0.300	0.004	0.012
C	0.100	0.250	0.004	0.010

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	0.50	0.0197
B	0.40	0.0157
C	1.90	0.0748
D	0.65	0.0250

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
BAV99DW	SOT-363	3000PCS	7″

To find your local partner within Semiwell's website : www.semiwell.com.cn