

## FEATURES

- | 100 Watts Peak Pulse Power per Line (tp=8/20µs)
- | Solid-state silicon-avalanche technology
- | Low operating and clamping voltages
- | Protects four I/O lines
- | Working Voltages :5V
- | Low Leakage Current
- | Meet AEC-Q101 Requirements

## APPLICATIONS

- | Cellular Handsets & Accessories
- | Personal Digital Assistants(PDAs)
- | Notebooks & Handhelds
- | Portable Instrumentation
- | Digital Cameras
- | MP3 Player



SOT-363



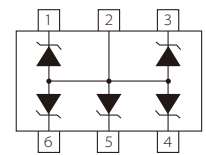
Marking

## IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

## APPROVALS

- |             |                                    |
|-------------|------------------------------------|
| <b>RoHS</b> | Compliance with 2011/65/EU         |
| <b>HF</b>   | Compliance with IEC61249-2-21:2003 |



Schematic Symbol

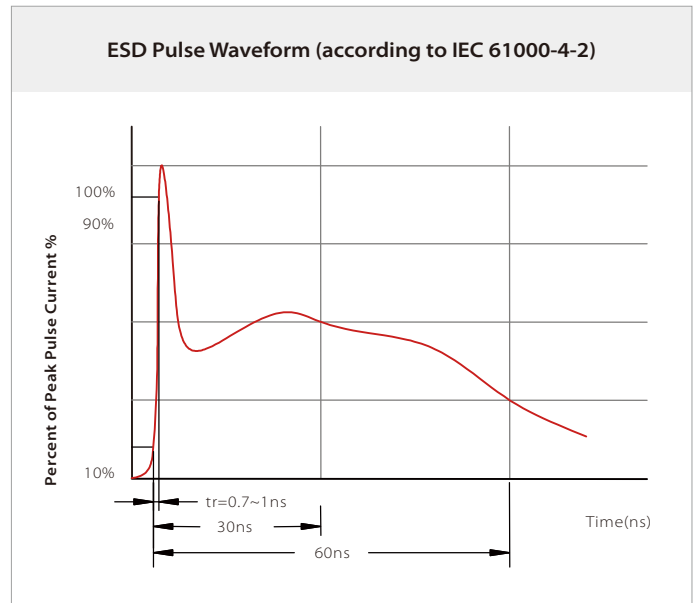
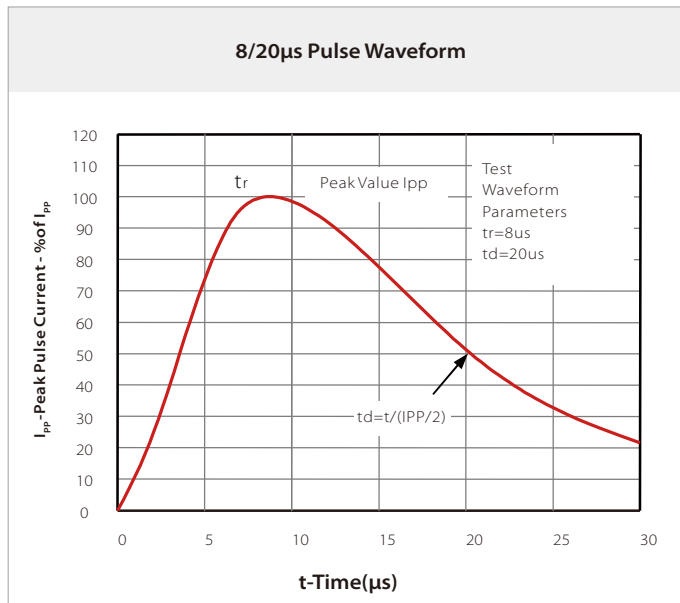
## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$P_{PP}$	Peak Pulse Power (tp=8/20µs waveform)	100	Watts
$T_J$	Operating Temperature Range	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS

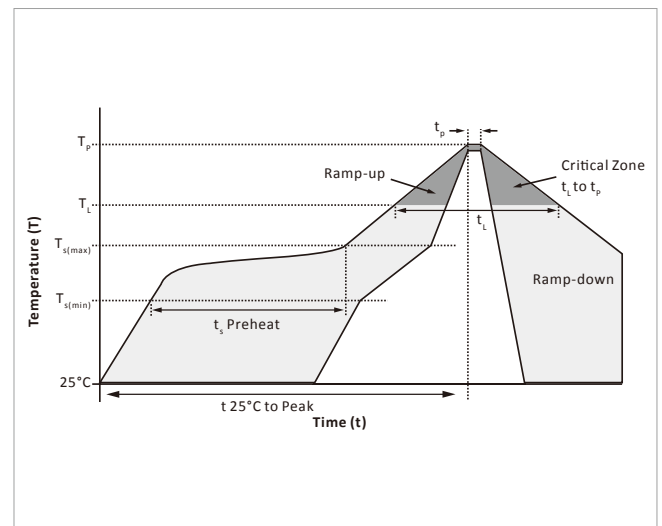
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
$V_{RWM}$	Reverse Stand-off Voltage				5	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T=1mA$	6			V
$I_R$	Reverse Leakage Current	$V_{RWM}=5V$			1	µA
$V_C$	Clamping Voltage (Tp=8/20us)	$I_{pp}=1A, tp=8/20us$			9.8	V
$V_C$	Clamping Voltage (Tp=8/20us)	$I_{pp}=8A, tp=8/20us$			15	V
$I_{PP}$	Peak Pulse Current (Tp=8/20us)	tp=8/20us			8	A
$C_J$	Off State Junction Capacitance	$V_R=0V, f=1MHz$			60	pF

## CHARACTERISTIC CURVES

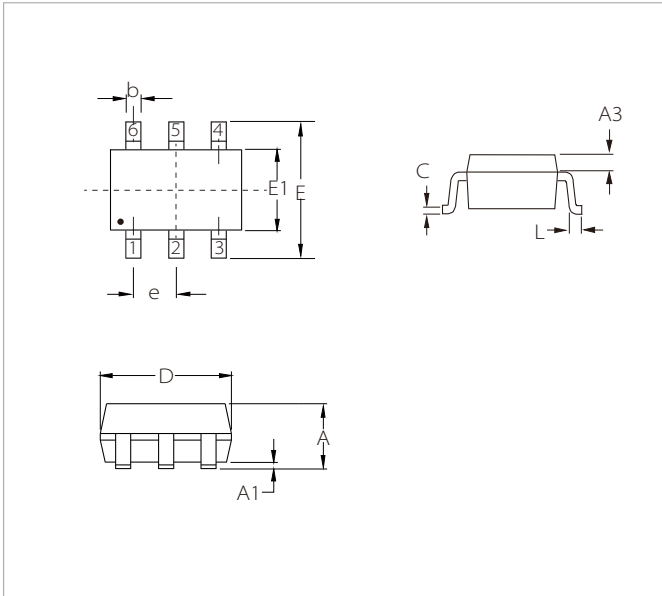


## SOLDERING PARAMETERS

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) ( $t_p$ )	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

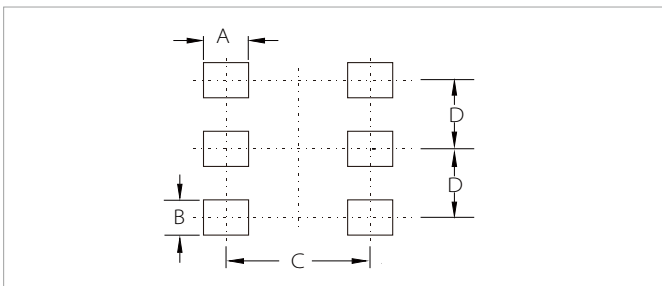


## SOT-363 PACKAGE INFORMATION



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
TPSE63T10U5.0E	SOT-363	3000PCS	7"

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