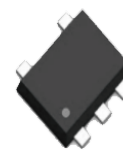


FEATURES

- | 56 Watts Peak Pulse Power per Line (tp=8/20μs)
- | Protects Two I/O Lines and One Vcc
- | Low Clamping Voltage
- | Working voltages : 5 V
- | Low leakage current

APPLICATIONS

- | USB Port Protection
- | HDMI/DVI Port Protection
- | Digital Sensor Input Protection
- | Industrial Controls
- | LVDS Protection
- | Automotive Applications



SOT-553



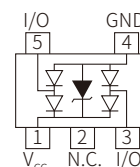
Marking

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±20kV (air), ±15kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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



Schematic Symbol

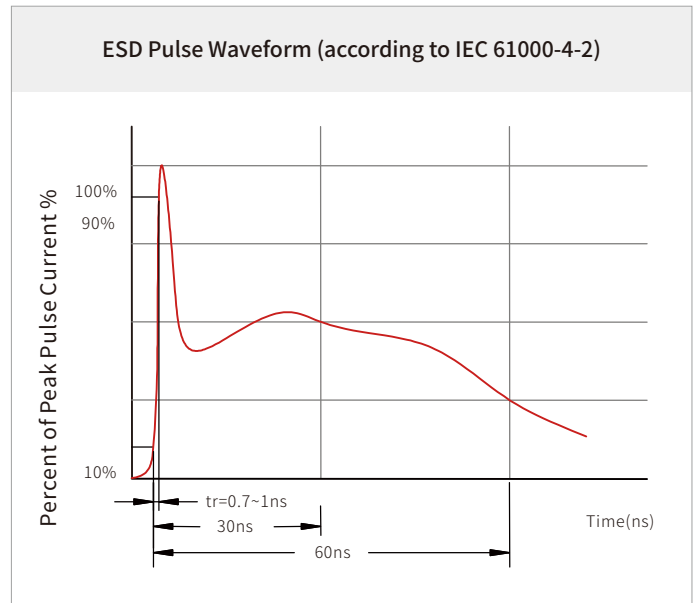
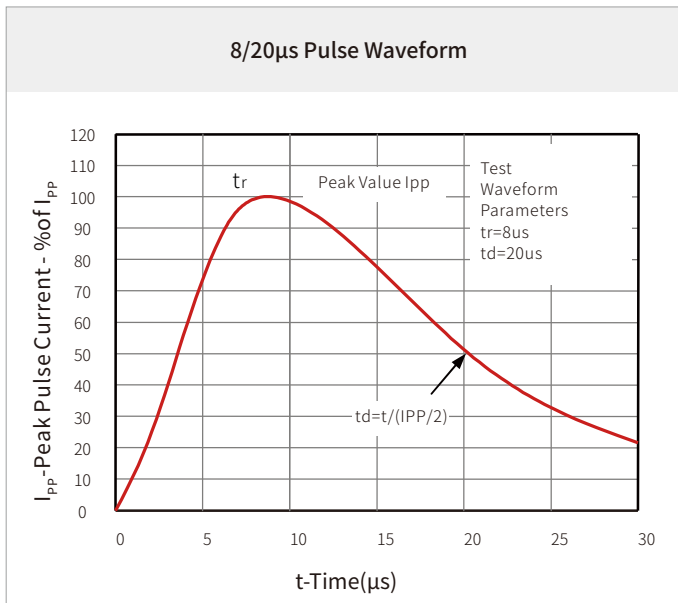
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P_{pp}	Peak Pulse Power (tp=8/20μs waveform)	56	Watts
T_J	Operating Temperature Range	-55 to +150	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

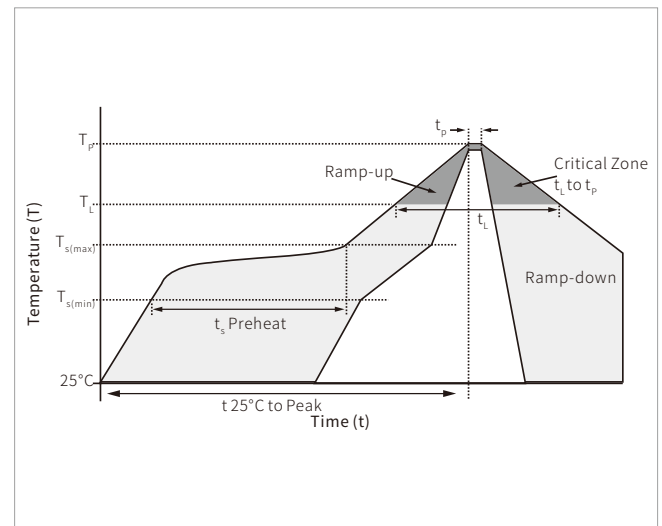
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				5	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	6			V
I_R	Reverse Leakage Current	$V_{RWM}=5V$			1	μA
V_C	Clamping Voltage	$I_{pp}=1A, tp=8/20\mu s$			9.8	V
V_C	Clamping Voltage	$I_{pp}=3A, tp=8/20\mu s$			14	V
V_C	Clamping Voltage	$I_{pp}=3.5A, tp=8/20\mu s$			16	V
I_{pp}	Peak Pulse Current	$tp=8/20\mu s$			3.5	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$		0.9		pF

CHARACTERISTIC CURVES

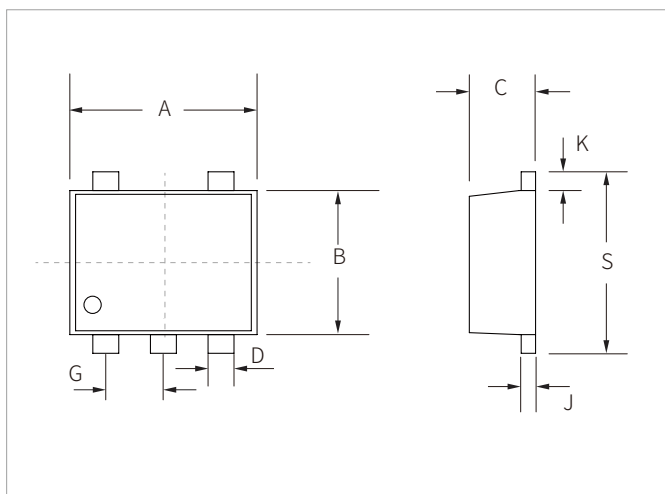


SOLDERING PARAMETERS

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_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
Reflow	$T_{s(max)}$ to T_L - Ramp-up Rate	3°C/second max
	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

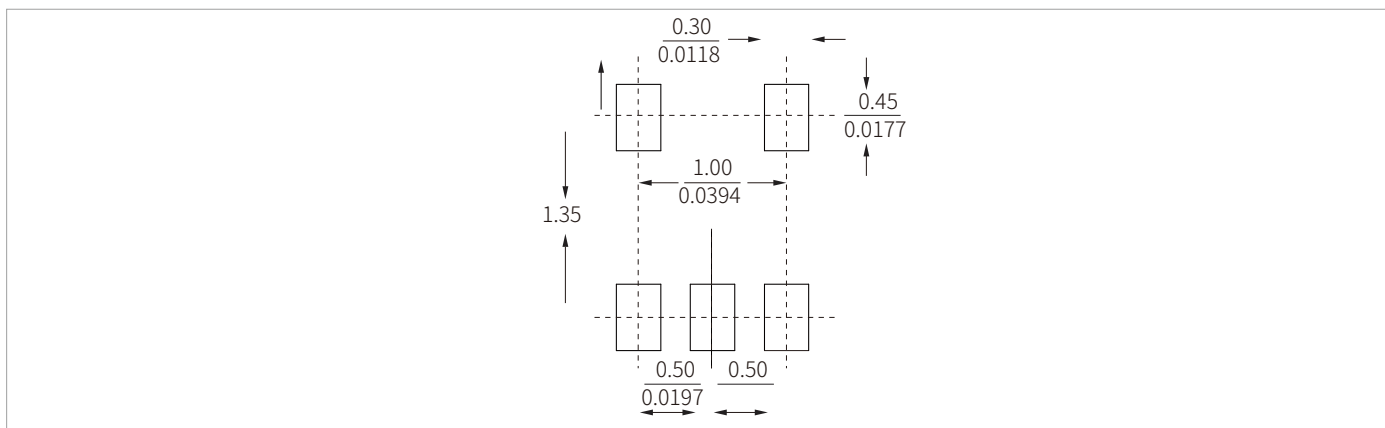


SOT-553 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50BSC		0.020BSC	
J	0.08	0.18	0.003	0.007
K	0.10	0.30	0.004	0.012
S	1.50	1.70	0.059	0.067

RECOMMENDED PAD LAYOUT DIMENSIONS



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE55T10U5.0MC	SOT-553	3000PCS	7"

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By QR Code

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