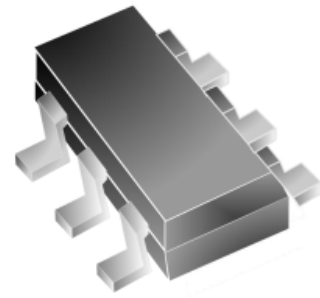




FEATURES:

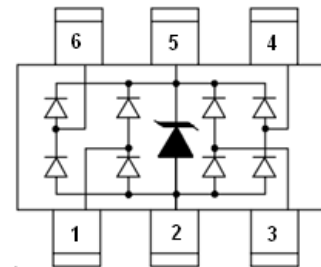
- ◇ 120 Watts peak pulse power per line ($t_P=8/20\mu s$)
- ◇ Protects four I/O lines
- ◇ Low clamping voltage
- ◇ Low operating voltage
- ◇ Low capacitance:0.3pF typical
- ◇ RoHS compliant



SOT-363

MAIN APPLICATIONS

- ◇ USB 2.0 power and data line protection
- ◇ Digital video interface (DVI)
- ◇ Notebook computers
- ◇ Video /graphics cards
- ◇ Monitors and flat panel displays
- ◇ Notebook and PC computers



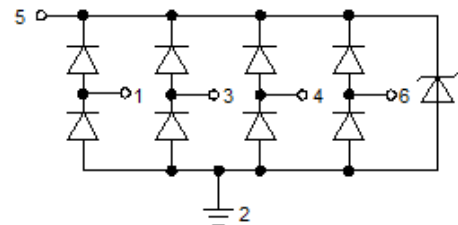
Pin Configuration

PROTECTION SOLUTION TO MEET

- ◇ IEC61000-4-2 (ESD) $\pm 20kV$ (air), $\pm 15kV$ (contact)
- ◇ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◇ IEC61000-4-5 (Lightning) 5A (8/20 μs)

MECHANICAL CHARACTERISTICS

- ◇ JEDEC SOT-363 package
- ◇ Molding compound flammability rating : UL 94V-0
- ◇ Quantity per reel : 3, 000pcs
- ◇ Lead finish : lead free
- ◇ Marking code: 5T



Circuit Diagram

ABSOLUTE MAXIMUM RATINGS (T_A=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20μs waveform	P _{PP}	120	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	+/- 20 +/- 15	kV
Lead soldering temperature	T _L	260 (10 sec.)	°C
Operating junction temperature range	T _J	-55 to +125	°C
Storage temperature range	T _{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V _{RWM}				5.0	V
Reverse breakdown voltage	V _{BR}	I _T =1mA	6.0			V
Reverse leakage current	I _R	V _{RWM} =5V			0.5	μA
Forward voltage	V _F	I _F =10mA		0.8	1.0	V
Clamping voltage (I/O pin to Ground)	V _C	I _{PP} =5A, t _p =8/20μs		15	18	V
Junction capacitance	C _J	V _{RWM} =0V, f=1MHz Any I/O pin to Ground		0.6	0.8	pF
		V _{RWM} =0V, f=1MHz Between I/O pins		0.3		

RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25°C, unless otherwise noted)

FIG.1: V- I curve characteristics (Uni-directional)

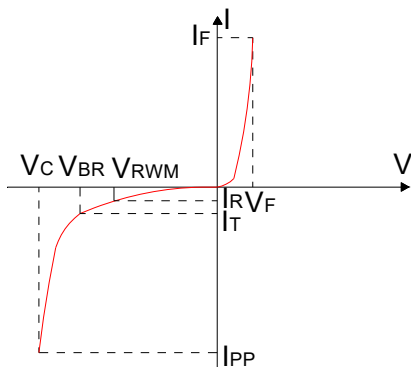


FIG.2: Pulse waveform (8/20μs)

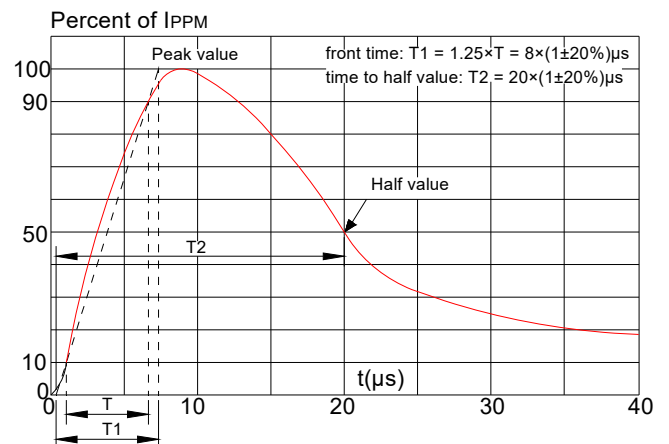


FIG.3: Pulse derating curve

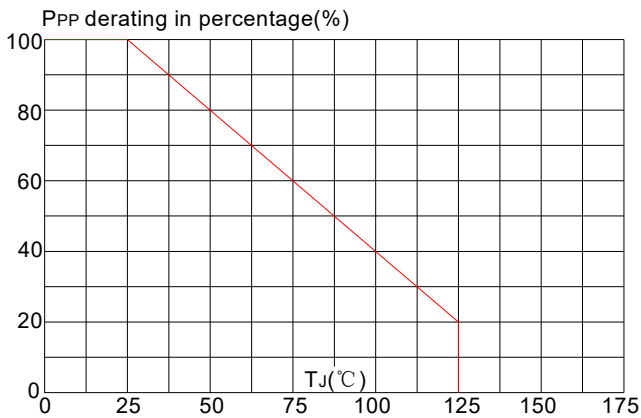
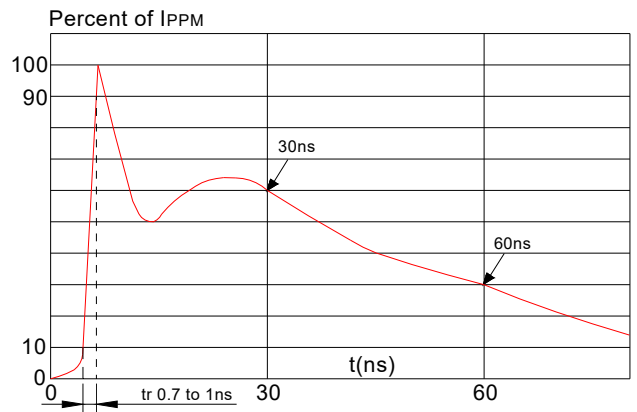
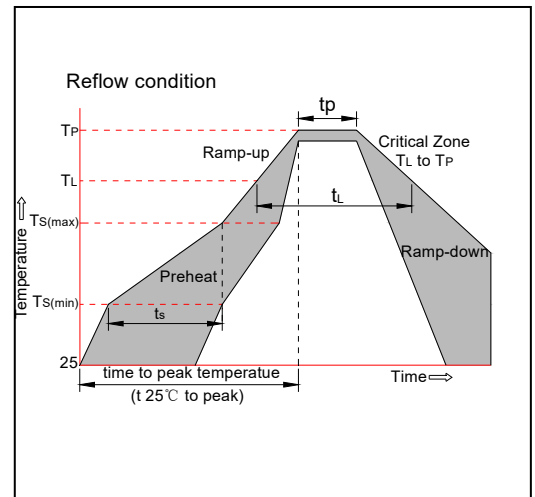


FIG.4: ESD clamping (15kV contact)

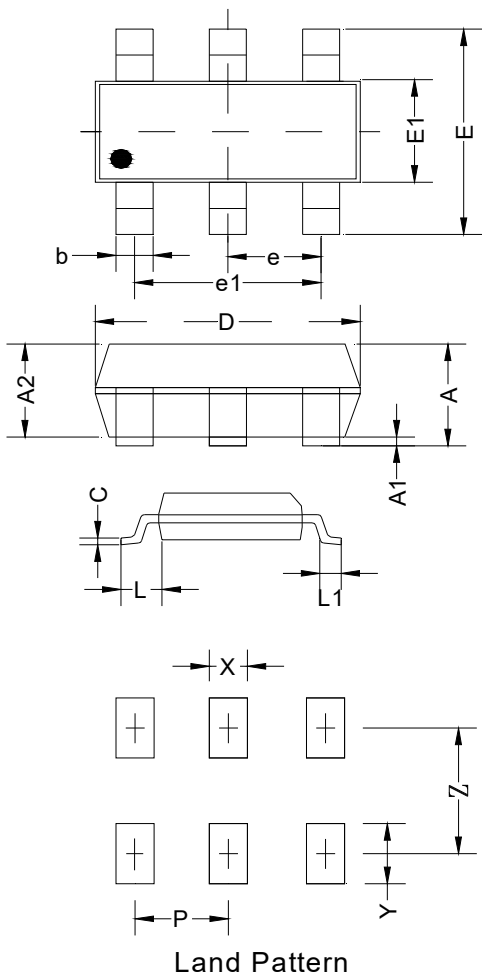


SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min (T _{s(min)})	+150°C
	-Temperature Max(T _{s(max)})	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp (T _L)to peak)		3°C/sec. Max
T _{s(max)} to T _L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T _L)(Liquidus)	+217°C
	-Time(t _L)	60-150 secs.
Peak Temp (T _p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t _p)		20-40secs.
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T _p)		8 min. Max
Do not exceed		+260°C

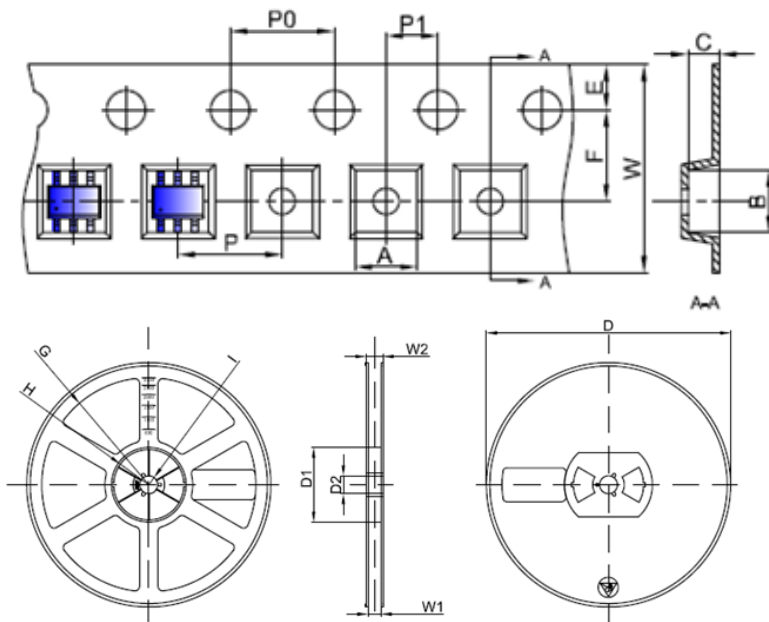


PACKAGE MECHANICAL DATA



Symbol	Millimeters			Inches		
	Min	Typ	Max	Min	Typ	Max
A	0.90	1.00	1.10	0.035	0.039	0.043
A1	0.00	0.03	0.10	0.000	0.001	0.004
A2	0.90	0.95	1.00	0.035	0.037	0.039
D	2.00	2.10	2.20	0.079	0.083	0.087
E1	1.15	1.20	1.35	0.045	0.047	0.053
E	2.150	-	2.450	0.085	-	0.096
e	0.65Typ.			0.026Typ.		
e1	1.20	1.30	1.40	0.047	0.051	0.055
b	0.10	-	0.35	0.004	-	0.014
L	0.525Ref.			0.021Ref.		
L1	0.15	-	0.46	0.006	-	0.018
Z	1.94			0.076		
P	0.65			0.026		
X	0.4			0.016		
Y	0.8			0.031		

TAPE AND REEL INFORMATION-SOT-363



Symbol	Millimeters	Inches
	Typ.	Typ.
A	2.25	0.089
B	2.55	0.100
C	1.20	0.047
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	4.00	0.157
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

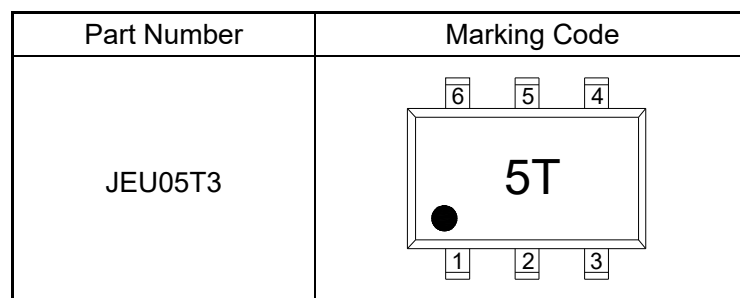
Packaging description:

SOT-363 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7'or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated) ..

ORDERING INFORMATION

PART No.	PACKAGE TYPE	QUANTITY(PCS) REEL	DESCRIPTION
JEU05T3	SOT-363	3,000	7 inch reel pack

MARKING CODE




JieJie products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable JieJie product documentation. Warranties granted by JieJie shall be deemed void for products used for any purpose not expressly set forth in applicable JieJie documentation. JieJie shall not be liable for any claims or damages arising out of products used in applications not expressly intended by JieJie as set forth in applicable JieJie documentation. The sale and use of JieJie products is subject to JieJie terms and conditions of sale, unless otherwise agreed by JieJie.

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