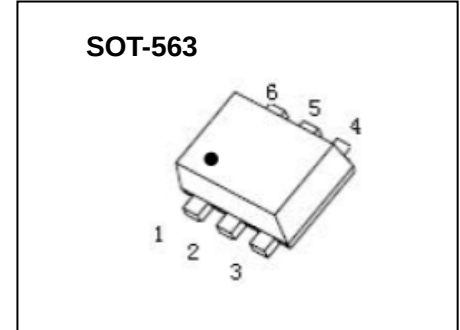




SOT-563 Plastic-Encapsulate MOSFETS

CJX3152P Dual P-Channel MOSFET

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
-20V	700 mΩ@-4.5V	-0.66A
	1Ω@-2.5V	
	1.2Ω@-1.8V	



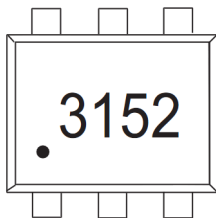
FEATURE

- Lead Free Product is Acquired
- Surface Mount Package
- P-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive
- ESD Protected Gate

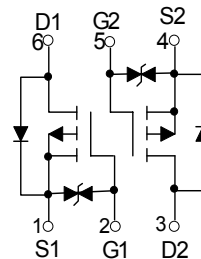
APPLICATION

- Load/ Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics
- Logic Level Shift

MARKING



Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current (note 1)	I_D	-0.66	A
Pulsed Drain Current ($t_p=10\mu\text{s}$)	I_{DM}	-1	A
Power Dissipation (note 2)	P_D	150	mW
Thermal Resistance from Junction to Ambient (note 1)	$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ 150	$^{\circ}\text{C}$
Lead Temperature for Soldering Purposes(1/8" from case for 10 s)	T_L	260	$^{\circ}\text{C}$

MOSFET ELECTRICAL CHARACTERISTICS

$T_a=25\text{ }^{\circ}\text{C}$ unless otherwise specified

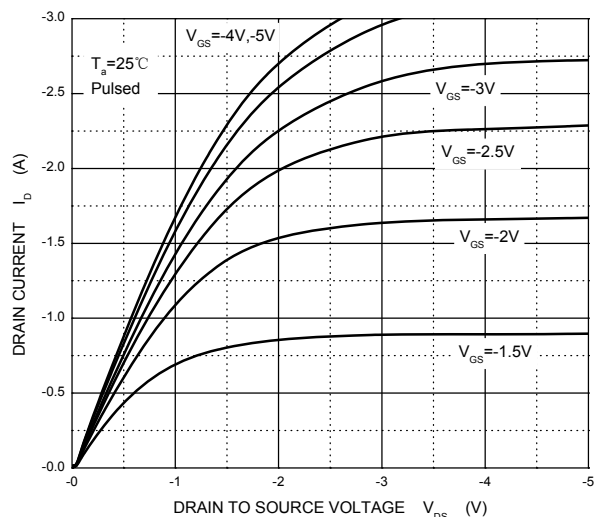
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =-250μA	-20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =-16V, V _{GS} = 0V			-1	μA
Gate-body leakage current	I _{GSS}	V _{GS} =±4.5V, V _{DS} = 0V			±2	uA
Gate threshold voltage (note 2)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.4	-0.45	-1	V
Drain-source on-resistance(note 2)	R _{DS(on)}	V _{GS} =-4.5V, I _D =-0.66A		0.45	0.7	Ω
		V _{GS} =-2.5V, I _D =-0.5A		0.55	1	Ω
		V _{GS} =-1.8V, I _D =-0.4A		0.72	1.2	Ω
Forward tranconductance(note 2)	g _{FS}	V _{DS} =-10V, I _D =-0.43A		1		S
Diode forward voltage	V _{SD}	I _S =-0.35A, V _{GS} = 0V			-1.2	V
DYNAMIC PARAMETERS(note 4)						
Input Capacitance	C _{iss}	V _{DS} =-16V, V _{GS} =0V, f =1MHz		105	175	pF
Output Capacitance	C _{oss}			15	30	pF
Reverse Transfer Capacitance	C _{rss}			10	20	pF
SWITCHING PARAMETERS (note 4)						
Turn-on delay time (note 3)	t _{d(on)}	V _{DD} =-4.5V, V _{GS} =-10V, I _D =-215mA, R _{GEN} =10Ω		10		ns
Turn-on rise time (note 3)	t _r			12		ns
Turn-off delay time (note 3)	t _{d(off)}			35		ns
Turn-off fall time (note 3)	t _f			19		ns
Total Gate Charge(note 3)	Q _g	V _{DS} =-10V, V _{GS} =-4.5V, I _D =-215mA		1.7	2.5	nC
Gate Source Charge(note 3)	Q _{gs}			0.3		nC
Gate Drain Charge(note 3)	Q _{gd}			0.4		nC

Notes :

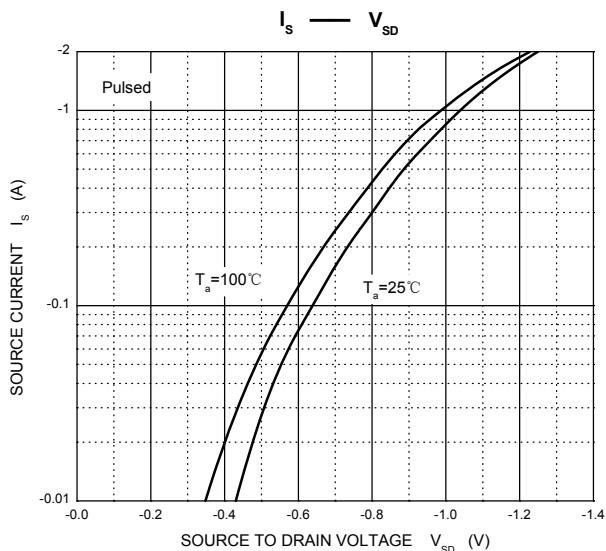
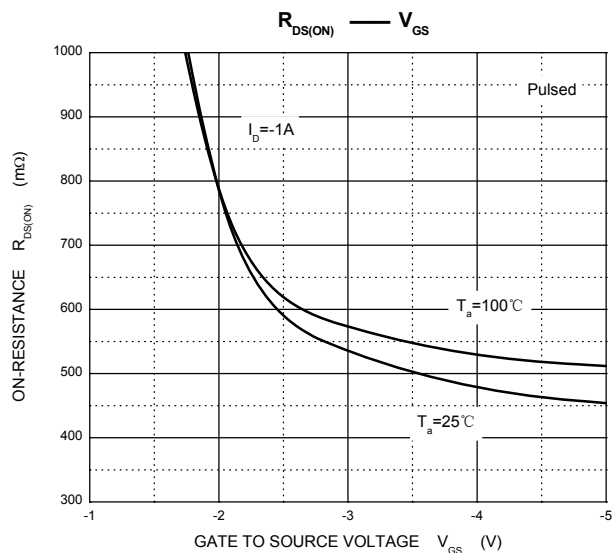
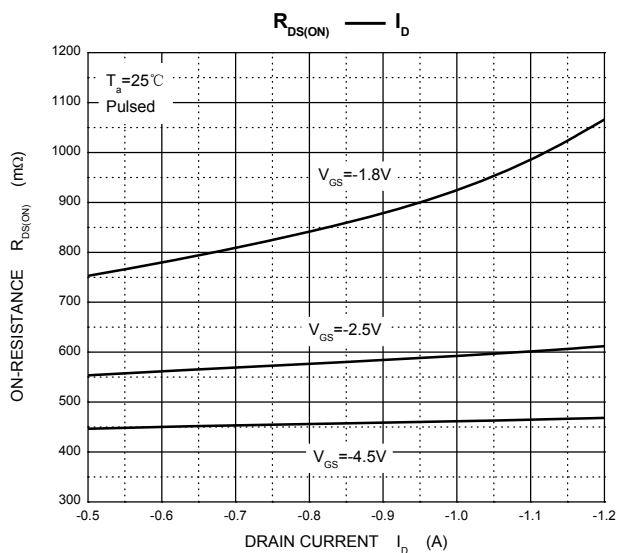
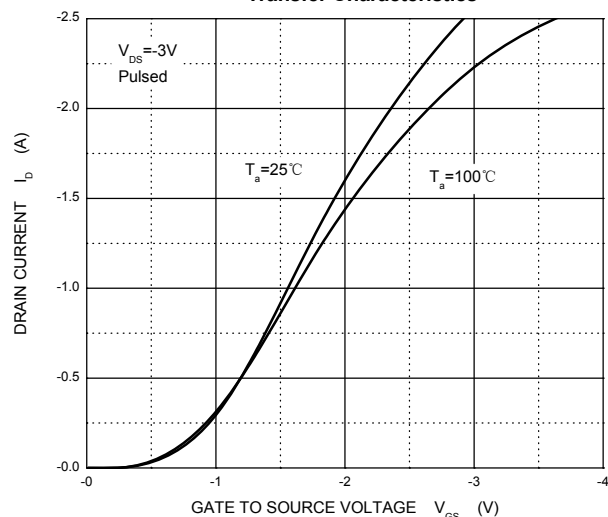
- 1.Surface mounted on FR4 board using the minimum recommended pad size.
2. Pulse Test : Pulse width=300 μs , duty cycle $\leq 2\%$.
3. Switching characteristics are independent of operating junction temperatures.
4. Graranted by design, not subject to producing.

Typical Characteristics

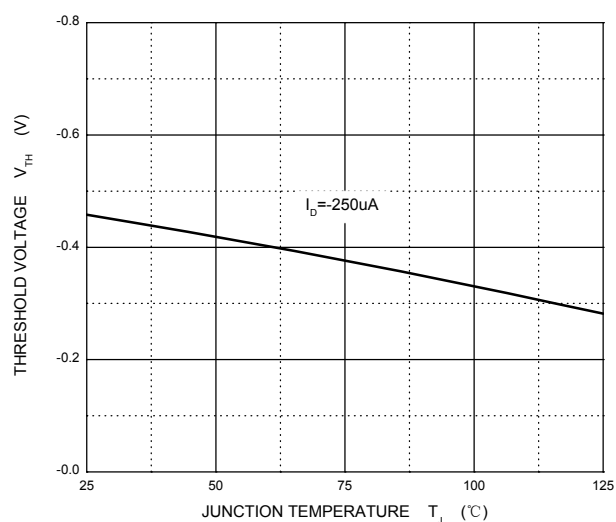
Output Characteristics



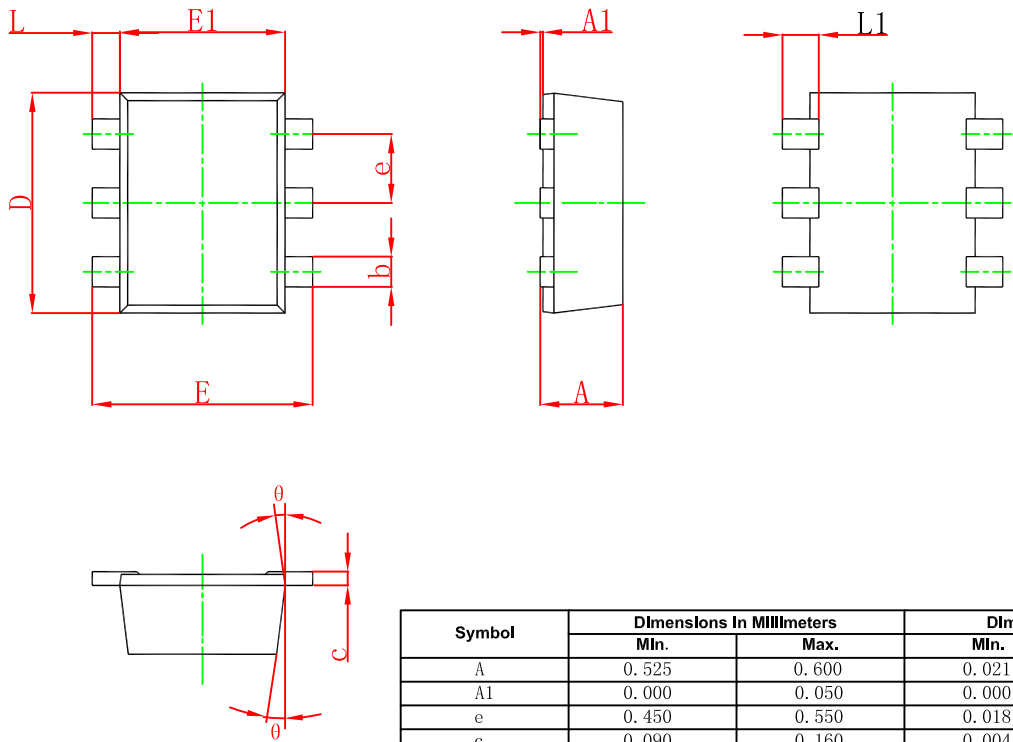
Transfer Characteristics



Threshold Voltage

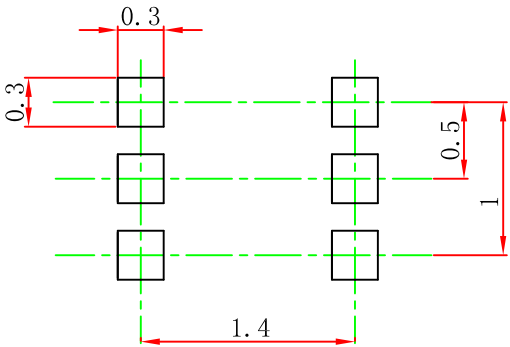


SOT-563 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	0.000	0.050	0.000	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
L1	0.200	0.400	0.008	0.016
θ	7 °REF.		7 °REF.	

SOT-563 Suggested Pad Layout



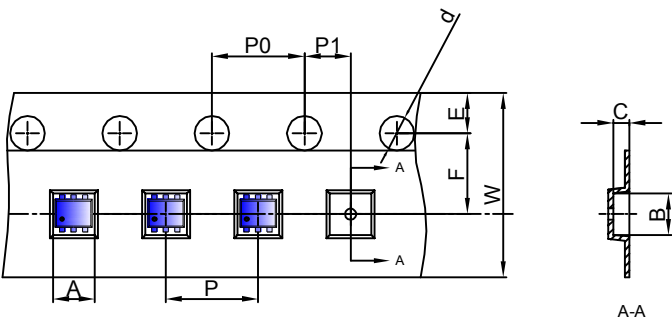
Note:
1.Controlling dimension:in millimeters.
2.General tolerance;±0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

JCET reserve the right to make modifications,enhancements, improvements, corrections or other changes without further notice to any product herein.JCET does not assume any liability arising out of the application or use of any product described herein.

SOT-563 Tape and reel

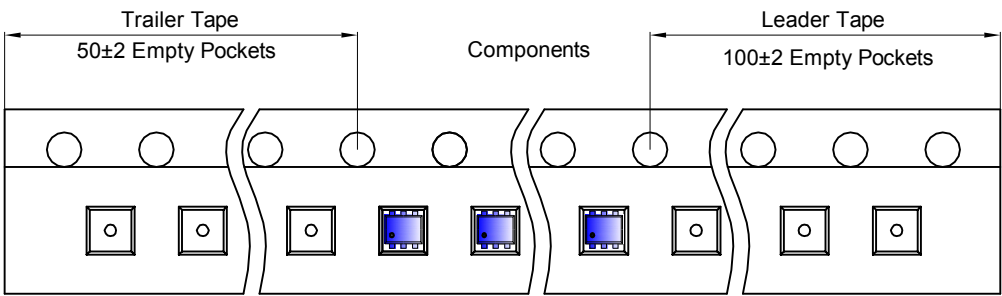
SOT-563 Embossed Carrier Tape



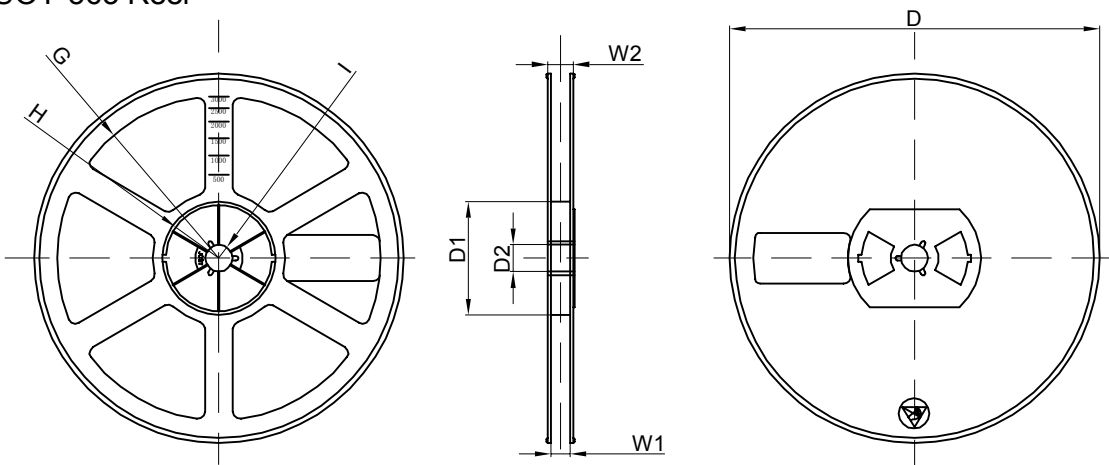
Packaging Description:
SOT-563 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. 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 is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-563	1.78	1.78	0.69	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-563 Tape Leader and Trailer



SOT-563 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	