

Features

	$V_{(BR)DSS}$	$R_{DS(on)Typ}$	I_D
Q_1	20V	270m Ω @4.5V	0.8 A
		300m Ω @2.5V	
		550m Ω @1.8V	
Q_2	-12V	470 m Ω @-4.5V	-0.9A
		610m Ω @-2.5V	
		950m Ω (TYP)@-1.8V	

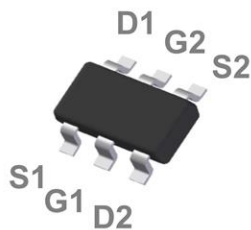
- ESD Protected

Application

- Notebook
- Load Switch
- Networking
- Hand-held Instruments

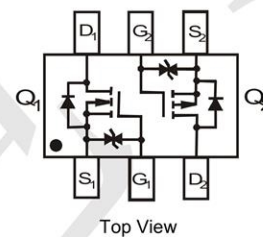
Package and Pin Configuration

SOT363



Marking: . TÇΩ
TW = Par Number
P = TECH PUBIC LOGOO

Circuit diagram



Absolute Maximum Ratings $T_c=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Unit
N-MOSFET			
Drain-Source Voltage	V_{DS}	20	V
Typical Gate-Source Voltage	V_{GS}	± 10	V
Continuous Drain Current (note 1)	I_D	0.8	A
Pulsed Drain Current ($t_p=10\mu\text{s}$)	I_{DM}	1.3	A
P-MOSFET			
Drain-Source Voltage	V_{DS}	-12	V
Typical Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current (note 1)	I_D	-0.9	A
Pulsed Drain Current ($t_p=10\mu\text{s}$)	I_{DM}	-1.3	A
Temperature and Thermal Resistance			
Thermal Resistance from Junction to Ambient (note 1)	$R_{\theta JA}$	650	$^\circ\text{C/W}$
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	$^\circ\text{C}$

Electrical Characteristics (T_J=25 °C, unless otherwise noted)

Q₁
N-ch MOSFET ELECTRICAL CHARACTERISTICS

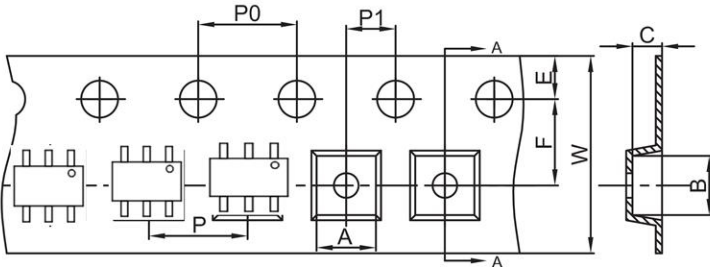
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC CHARACTERISTICS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =250μA	20	27		V
Zero gate voltage drain current	I _{DSS}	V _{DS} =20V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} =±12V, V _{DS} = 0V			±20	uA
Gate threshold voltage (note 2)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.45	0.7	1.1	V
Drain-source on-resistance(note 2)	R _{DSON}	V _{GS} =4.5V, I _D =0.65A		270		mΩ
		V _{GS} =2.5V, I _D =0.55A		300		mΩ
		V _{GS} =1.8V, I _D =0.45A		550	800	mΩ
Forward tranconductance(note 2)	g _{FS}	V _{DS} =10V, I _D =0.8A		1.6		S
Diode forward voltage	V _{SD}	I _S =0.15A, V _{GS} = 0V			1.2	V
DYNAMIC CHARACTERISTICS (note 4)						
Input Capacitance	C _{ISS}	V _{DS} =16V, V _{GS} =0V, f =1MHz			120	pF
Output Capacitance	C _{OSS}				20	pF
Reverse Transfer Capacitance	C _{RSS}				15	pF
SWITCHING CHARACTERISTICS (note 3,4)						
Turn-on delay time	t _{d(on)}	V _{GS} =4.5V, V _{DS} =10V, I _D =500mA, R _{GEN} =10Ω		6.7		ns
Turn-on rise time	t _r			4.8		ns
Turn-off delay time	t _{d(off)}			17.3		ns
Turn-off fall time	t _f			7.4		ns

Q₂
P-ch MOSFET ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC CHARACTERISTICS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =-250μA	-12			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =-12V, V _{GS} = 0V			-1	μA
Gate-body leakage current	I _{GSS}	V _{GS} =±12V, V _{DS} = 0V			±20	uA
Gate threshold voltage (note 2)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.45	-0.7	-1.3	V
Drain-source on-resistance(note 2)	R _{DSON}	V _{GS} =-4.5V, I _D =-0.5A		470		mΩ
		V _{GS} =-2.5V, I _D =-0.45A		610	800	mΩ
		V _{GS} =-1.8V, I _D =-0.36A		950		mΩ
Forward tranconductance(note 2)	g _{FS}	V _{DS} =-10V, I _D =-0.54A		1.2		S
Diode forward voltage	V _{SD}	I _S =-0.5A, V _{GS} = 0V			-1.2	V
DYNAMIC CHARACTERISTICS (note 4)						
Input Capacitance	C _{ISS}	V _{DS} =-10V, V _{GS} =0V, f =1MHz		60		pF
Output Capacitance	C _{OSS}			5.8		pF
Reverse Transfer Capacitance	C _{RSS}			5		pF
SWITCHING CHARACTERISTICS (note 3,4)						
Turn-on delay time	t _{d(on)}	V _{GS} =-4.5V, V _{DS} =-10V, I _D =-200mA, R _{GEN} =10Ω		9		ns
Turn-on rise time	t _r			5.8		ns
Turn-off delay time	t _{d(off)}			32.7		ns
Turn-off fall time	t _f			20.3		ns



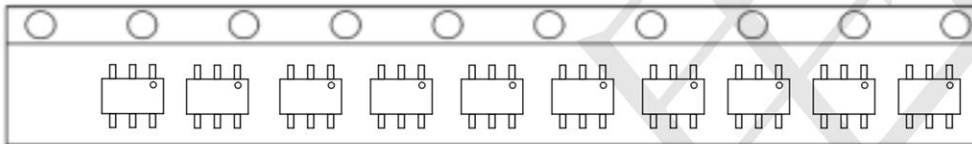
SOT-363 Embossed Carrier Tape



Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-363 Tape Leader and Trailer

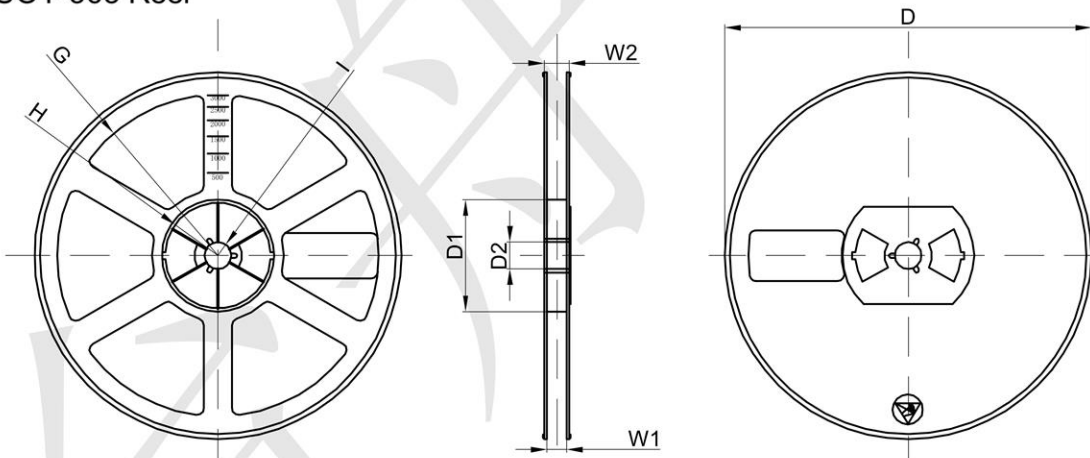
Package orientation in reel
pin1



sprocket Holes

Shipping:3000pcs / Tape & Reel

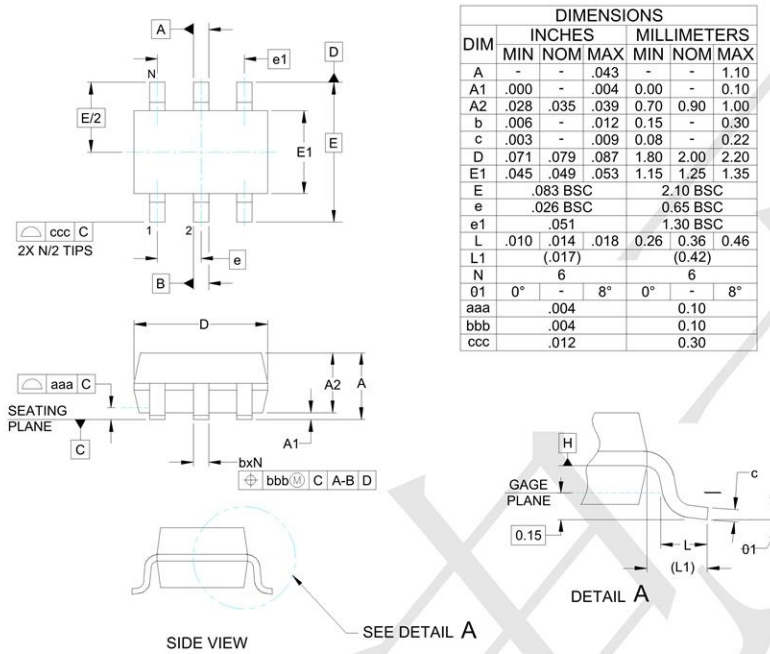
SOT-363 Reel



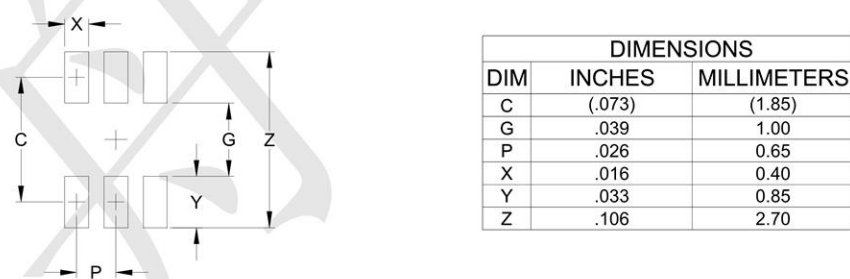
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	

Outline Drawing - SOT-363(2.0X2.1)



Land Pattern - SOT-363



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