

Features

	$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
Q_1	20V	270m Ω @4.5V	0.8 A
		320 Ω @2.5V	
		800m Ω @1.8V	
Q_2	-20V	520m Ω @-4.5V	-0.8 A
		700m Ω @-2.5V	
		950m Ω (TYP)@-1.8V	

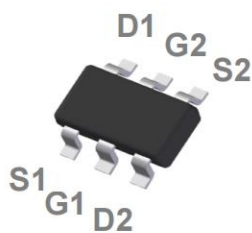
- ESD Protected

Application

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

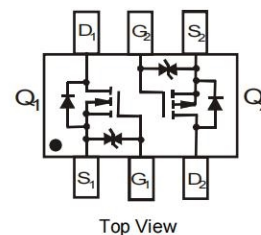
Package and Pin Configuration

SOT363



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

Circuit diagram



Absolute Maximum Ratings Tc=25°C unless otherwise noted

Parameter	Symbol	Value	Unit
N-MOSFET			
Drain-Source Voltage	V_{DS}	20	V
Typical Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current (note 1)	I_D	0.8	A
Pulsed Drain Current (tp=10us)	I_{DM}	1.3	A
P-MOSFET			
Drain-Source Voltage	V_{DS}	-20	V
Typical Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current (note 1)	I_D	-0.8	A
Pulsed Drain Current (tp=10us)	I_{DM}	-1.3	A
Temperature and Thermal Resistance			
Thermal Resistance from Junction to Ambient (note 1)	$R_{\theta JA}$	650	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~+150	°C
Lead Temperature for Soldering Purposes(1/8" from case for 10 s)	T_L	260	°C



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

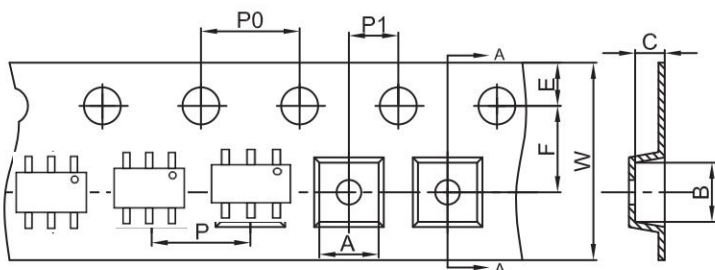
Q₁
N-ch MOSFET ELECTRICAL CHARACTERISTICS

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			320	mΩ
		V _{GS} = 1.8V, I _D = 0.45A			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	-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	-1.3	V
Drain-source on-resistance(note 2)	R _{DSON}	V _{GS} = -4.5V, I _D = -1A		270	520	mΩ
		V _{GS} = -2.5V, I _D = -0.8A		330	700	mΩ
		V _{GS} = -1.8V, I _D = -0.5A		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} = -16V, V _{GS} = 0V, f = 1MHz			170	pF
Output Capacitance	C _{OSS}				25	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 = -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

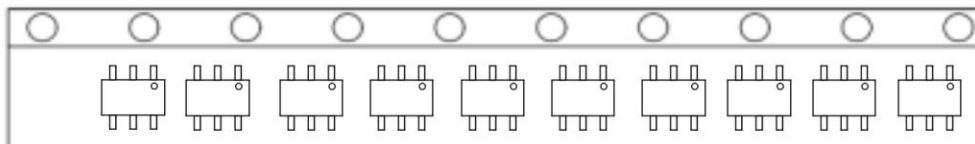
SOT-363 Embossed Carrier Tape



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

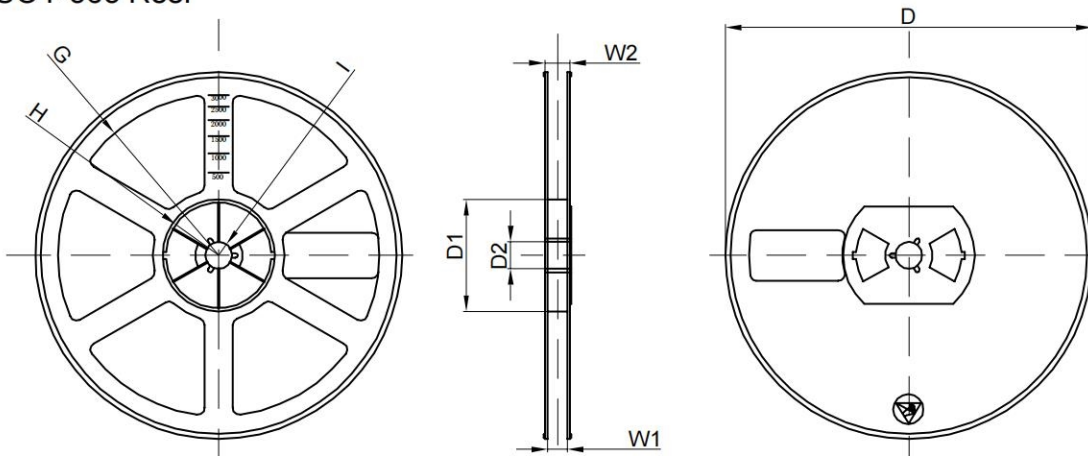
Package orientation in reel
pin1



sprocket Holes

Shipping:3000pcs / Tape & Reel

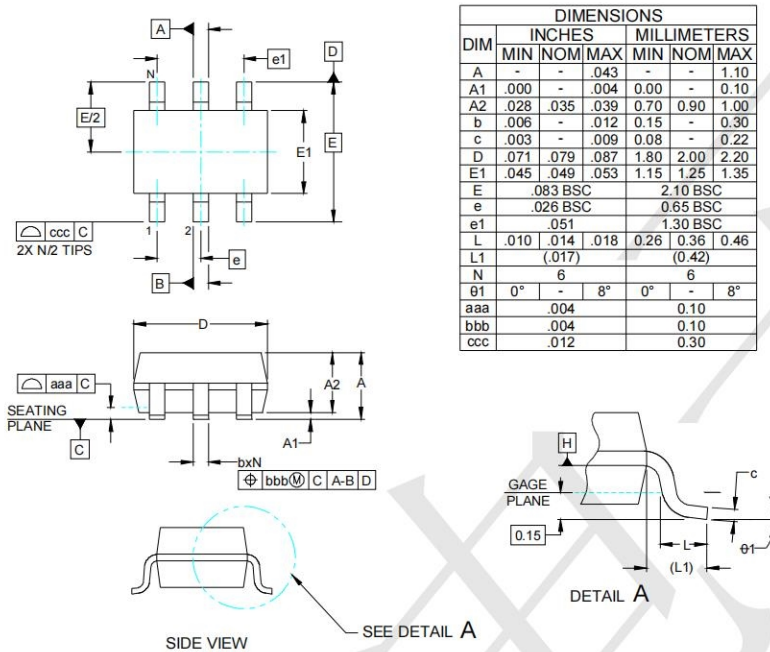
SOT-363 Reel



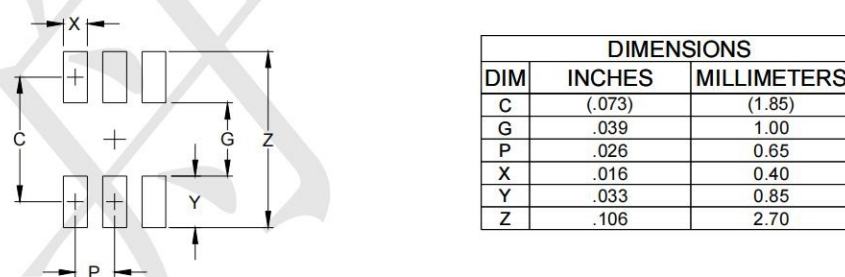
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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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