

## Product Summary

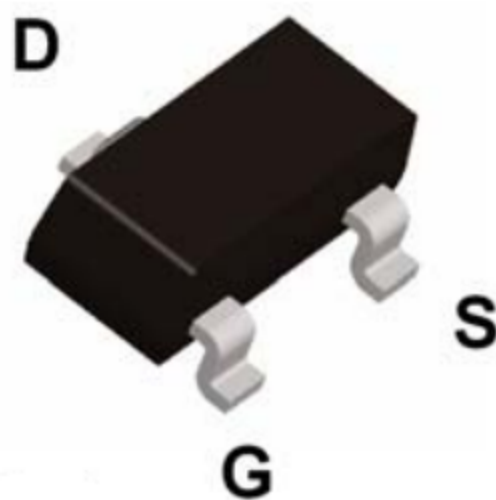
- VDS=-150V,ID=0.9A
- RDS(ON)=750mΩ(Typ)@VGS=10V

## Application

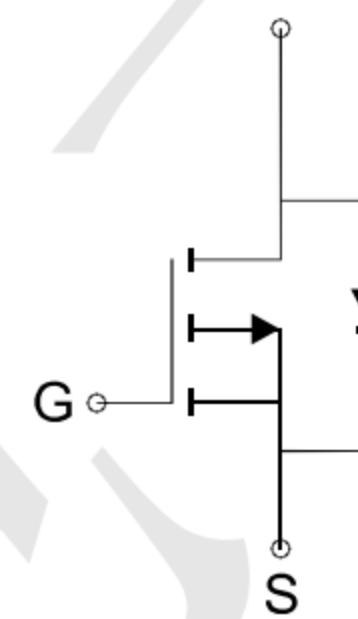
- Load Switch
- Active Clamp Switch

## Package and Pin Configuration

SOT-23



## Circuit diagram



P-Channel MOSFET

Marking: D5TPM

## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-150	V
Gate-Source Voltage	VGS	±20	
Continuous Drain Current	ID	-0.9	A
Pulsed Diode Current	IDM	-1.8	
Power Dissipation	PD	1.1	W
Thermal Resistance from Junction to Ambient (t≤10s)	RθJA	80	°C/W
Operating Junction	TJ	150	°C
Storage Temperature	TSTG	-55~+150	°C

**Electrical Characteristics (  $T_A = 25^\circ\text{C}$  unless otherwise noted )**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Static</b>						
Drain-source breakdown voltage	V(BR)DSS	VGS = 0V, ID = -250 $\mu$ A	-150			V
Gate-source threshold voltage	VGS(th)	VDS = VGS, ID = -250 $\mu$ A	-2.0	-3.0	-4.0	V
Gate-source leakage	IGSS	VDS = 0V, VGS = $\pm$ 20V			$\pm$ 100	nA
Zero gate voltage drain current	IDSS	VDS = -120V, VGS = 0V			-1	$\mu$ A
Drain-source on-state resistancea	RDS(on)	VGS = -10V, ID = -1A		750	950	m $\Omega$
Forward transconductancea	gfs	VDS = -10 V, ID = -0.8A		1.5		S
Diode forward voltage	VSD	IS= -1A,VGS=0V		-0.8	-1.3	V
<b>Dynamic</b>						
Input capacitance	Ciss	VDS = -75V, VGS = 0V, f=1MHz		175		pF
Output capacitance	Coss			17		pF
Reverse transfer capacitanceb	Crss			1.8		pF
Total gate charge	Qg	VGS = 0 V to -10 V VDD = -75 V, ID = -0.8 A		2.9		nC
Gate-source charge	Qgs			0.8		nC
Gate-drain charge	Qgd			0.8		nC
Gate resistance	Rg		0.1		7.2	$\Omega$
<b>Switchingbtr</b>						
Turn-on delay time	td(on)	VDS= -75V, ID= -0.8A RGEN=6.0 $\Omega$ , VGS= -10V		6		ns
Rise time	tr			2		ns
Turn-off delay time	td(off)			8		ns
Fall time	tf			10		ns



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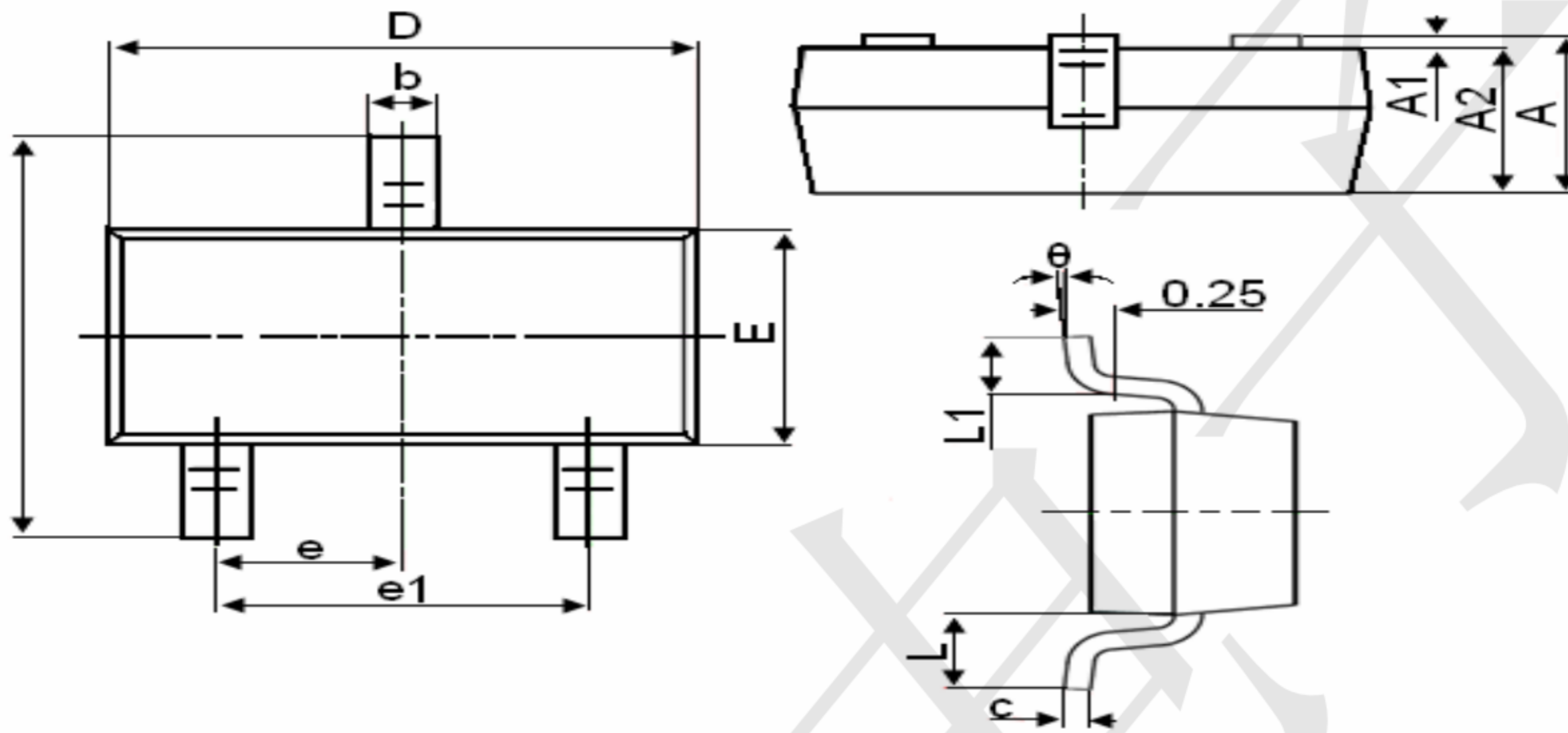
—台丹电子—

FDN86265P-TP

-150V,P-Channel Power Trench MOSFET

www.sot23.com.tw

SOT-23 Package Information



Symbol	Dimensions in Millimeters	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
$\theta$	0°	8°