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台舟电子

FDN86265P

-150V,P-Channel Power Trench MOSFET

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Product Summary

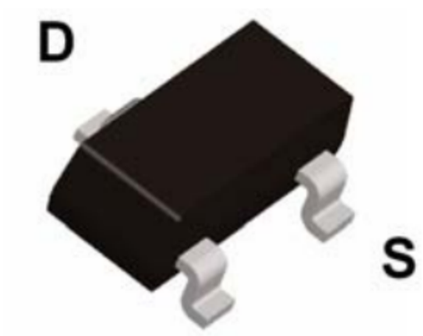
- VDS=-150V,ID=0.9A
- RDS(ON)=750mΩ(Typ)@VGS=10V

Application

- Load Switch
- Active Clamp Switch

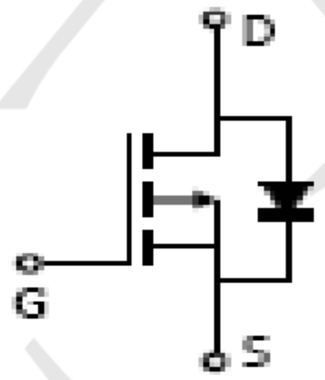
Package and Pin Configuration

SOT-23



Marking: D5TPM

Circuit diagram



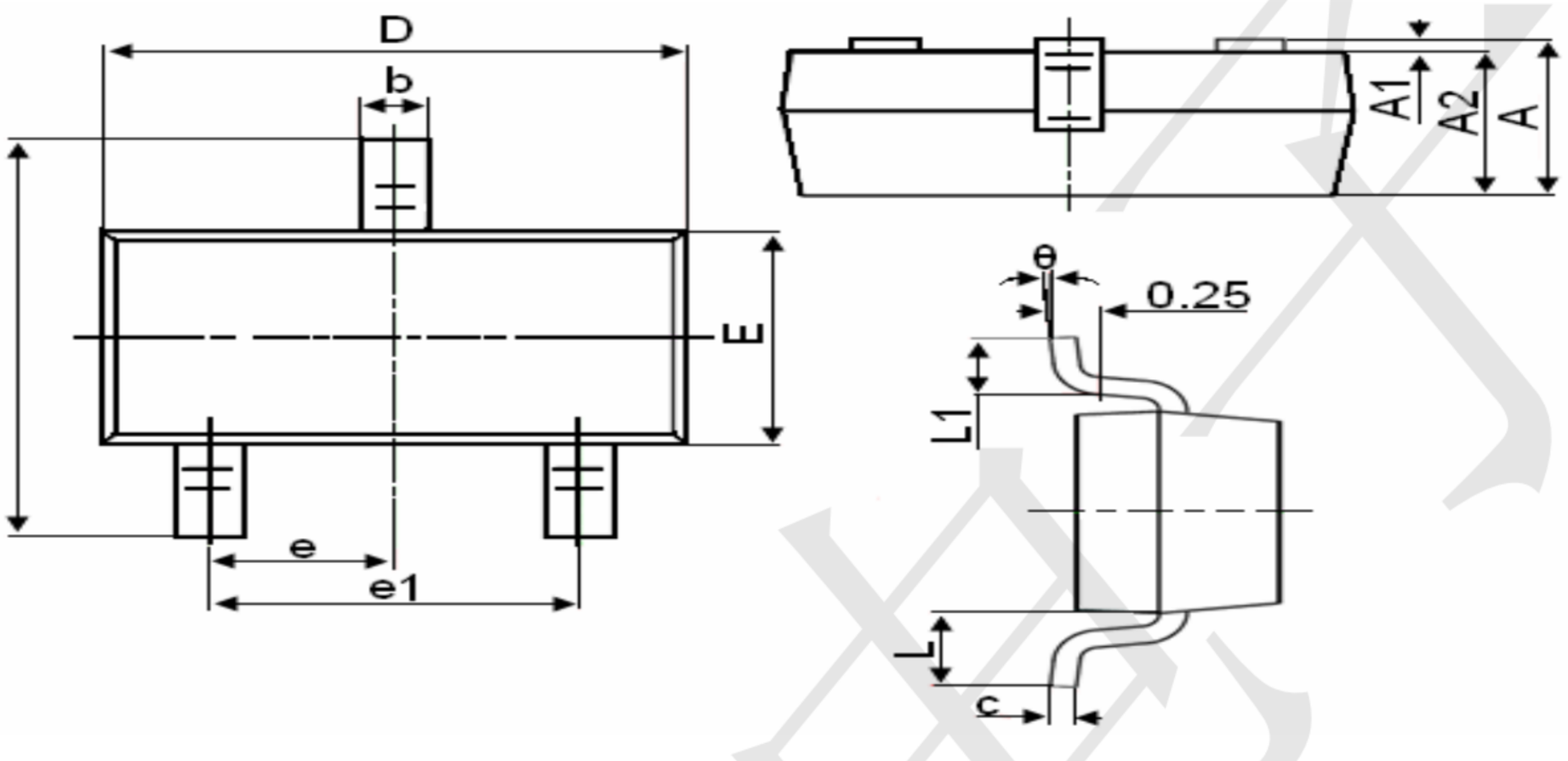
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

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

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Drain-source breakdown voltage	V(BR)DSS	VGS = 0V, ID = -250μA	-150			V
Gate-source threshold voltage	VGS(th)	VDS =VGS, ID = -250μA	-2.0	-3.0	-4.0	V
Gate-source leakage	IGSS	VDS =0V, VGS = ±20V			±100	nA
Zero gate voltage drain current	IDSS	VDS = -120V, VGS =0V			-1	μA
Drain-source on-state resistancea	RDS(on)	VGS = -10V , ID = -1A		750	950	mΩ
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
Dynamic						
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	Ω
Switchingbtr						
Turn-on delay time	td(on)	VDS= -75V, ID= -0.8A RGEN=6.0Ω,VGS= -10V		6		ns
Rise time	tr			2		ns
Turn-off delay time	td(off)			8		ns
Fall time	tf			10		ns

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
θ	0°	8°