The ZM8810T combines advanced trench MOSFET technology with a low resistance package to provide extremely low RDS(ON) . This device is ideal for load switch and battery protection applications.

high cell density Trench technology

$_{DS(ON)}$ to minimize conductive loss

Load Switch

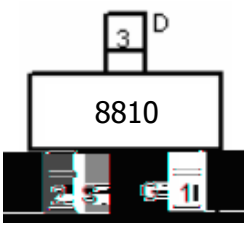
PWM Application

Product Summary

V_{DS} =20V

$R_{DS(ON)}$ =16mΩ

I_D =7A



SOT23-3

Part NO.	ZM8810T
Marking	ZM8810
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

T_C =25

Parameter	**Symbol**	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±8	V
Continuous Drain Current	$I_{D@}$TC=25℃	7	A
	$I_{D@}$TC=75℃	5.3	A
	$I_{D@}$TC=100℃	4.4	A
Pulsed Drain Current ①	I_{DM}	25	A
Total Power Dissipation	P_D	12	W
Total Power Dissipation(TA=25℃)	P_D@TA=25℃	0.75	W
Operating Junction Temperature	T_J	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	10	C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	170	C/W
Soldering temperature, wavesoldering for 10s	T_{sold}	-	-	265	C

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} =0V,I_D =250uA	20			V
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS} =V_{DS}, I_D =250uA	0.45	0.6	1	V
Drain-Source Leakage Current	I_{DSS}	V_{DS}=16V, V_{GS} =0V			1.0	uA
Gate- Source Leakage Current	I_{GSS}	V_{GS}=±8V ,V_{DS} =0V			±100	nA
Static Drain-source On Resistance	$R_{DS(ON)}$	V_{GS}=4.5V, I_D=6A		16	20	mΩ
		V_{GS}=2.5V, I_D=6A		19	25	mΩ
Forward Transconductance	g_{FS}	V_{DS} =10V, I_D=1A		50		s
Source-drain voltage	V_{SD}	Is=6A			1.28	V

Fig.1 Power Dissipation Derating Curve

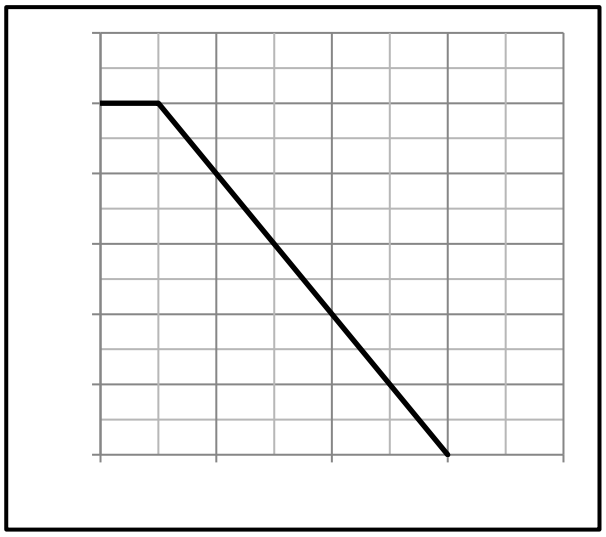


Fig.2 Typical output Characteristics

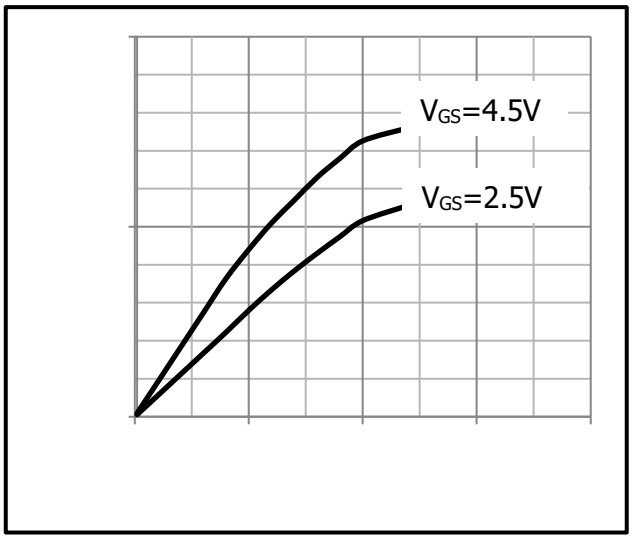


Fig.3 Threshold Voltage V.S Junction Temperature

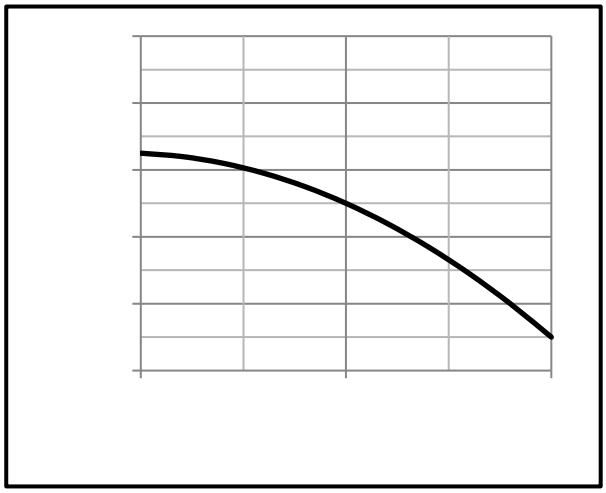


Fig.4 Resistance V.S Drain Current

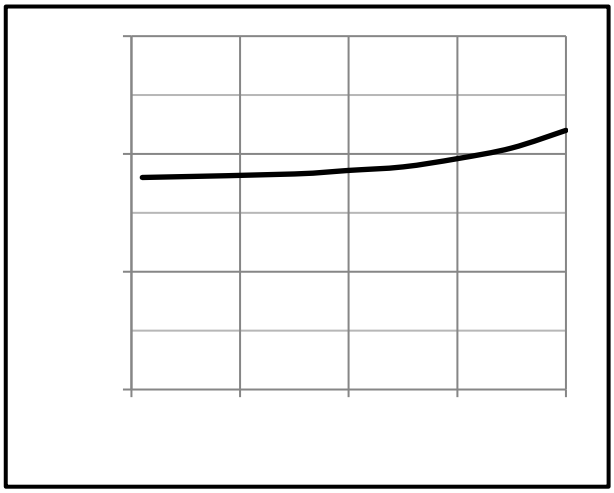
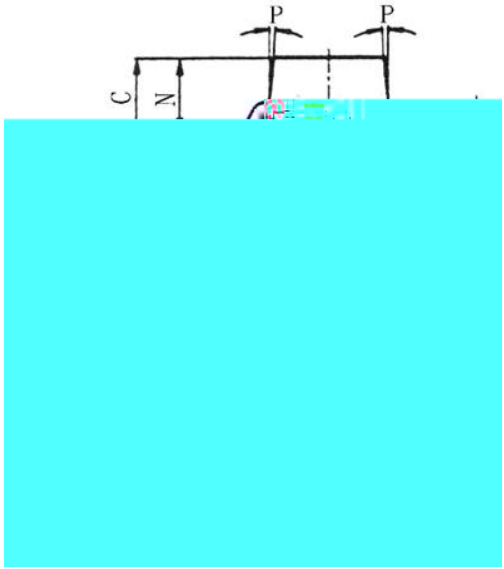


Fig.5 On-Resistance VS Gate Source Voltage

Fig.6 On-Resistance V.S Junction Temperature

(SOT23-3)

Unit mm



SYMBOL	min	nom	max
A	2.70	2.9	3.10
B	1.15	1.3	1.50
C			1.30
D	0.35	0.4	0.55
E	2.20	2.4	2.70
G	1.70	1.9	2.10
H	0.85	0.95	1.05
J	0.05	0.10	0.20

K	0.00		0.10
L	0.45	0.55	0.65
M	0.20		
N	0.90	1.00	1.20
P		7°	