

Features

- $V_{DS} = -30V, I_D = -4A$
 $R_{DS(ON)} < 62m\Omega @ V_{GS} = -10V$
 $R_{DS(ON)} < 77m\Omega @ V_{GS} = -4.5V$
- Package: SOT-23

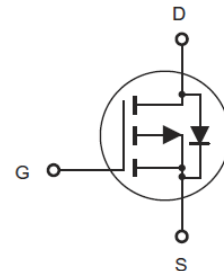
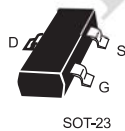
Applications

- Battery protection
- Load switch
- Power management



Ordering Information

Part Number	Qty per Reel	Reel Size
TPM3407	3000	7"



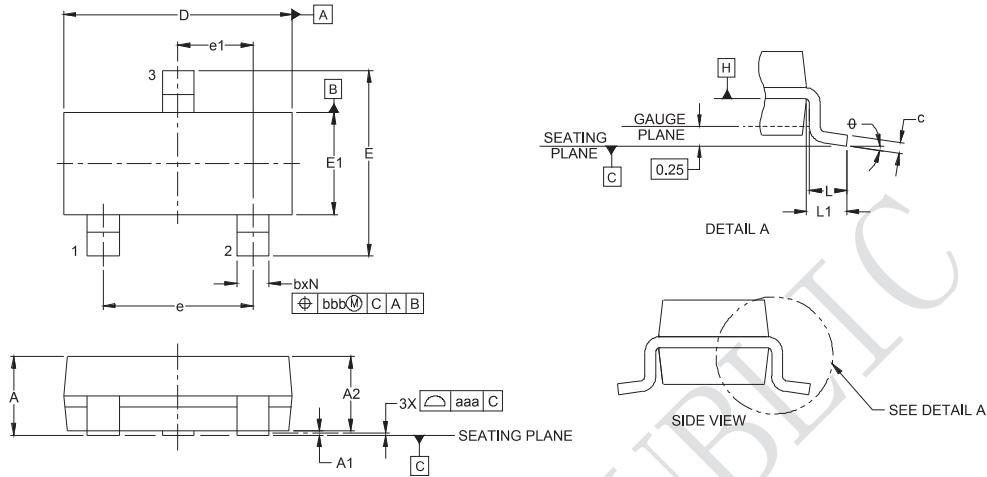
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
V _{DS}	Drain-source Voltage	-30	V
V _{GS}	Gate-source Voltage	±20	V
I _D	Drain Current	-4	A
P _D	Total Power Dissipation	1.2	W
R _{thJA}	Thermal Resistance From Junction To Ambient	105	°C/W
T _J	Operation Junction Temperature	-55~+150	°C
T _{STG}	Storage Temperature	-55~+150	°C

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

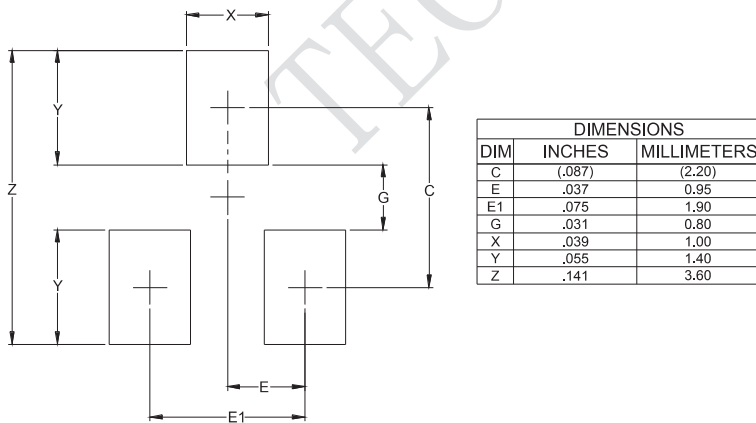
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =-250μA	-30			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =-30V, V _{GS} =0V			-1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±20V, V _{DS} =0V			±100	nA
Gate threshold voltage*	V _{GS(th)}	V _{DS} = V _{GS} , I _D =-250μA	-1.0	-1.5	-2.4	V
Drain-source on-resistance*	R _{DS(ON)}	V _{GS} = -10V, I _D =-4.1A		45	62	mΩ
		V _{GS} = -4.5V, I _D =3.5A		57	77	
Forward Transconductance	g _{FS}	V _{DS} = -5V, I _D =-4A	5			
Dynamic Characteristics **						
Input Capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f=1MHZ		610		pF
Output Capacitance	C _{oss}			100		
Reverse Transfer Capacitance	C _{rss}			75		
Switching Characteristics**						
Turn-on delay time	t _{d(on)}	V _{DD} =-15V, V _{GS} =-10V, R _L =15Ω, I _D =-1A, R _{GEN} =2.5Ω		14		ns
Turn-on rise time	t _r			61		
Turn-off delay time	t _{d(off)}			19		
Turn-off Fall time	t _f			10		
Total Gate Charge	Q _g	V _{DS} =-15V, I _D =-4A, V _{GS} =-10V		6.8		nC
Gate-Source Charge	Q _{gs}			1.0		
Gate-Drain Charge	Q _{gd}			1.4		
Source-Drain Diode characteristics						
Drain-Source Diode Forward Current	I _S				-4.1	A
Diode Forward voltage	V _{SD}	V _{GS} =0V, I _S =-4 A		-0.8	-1.2	V

Outline Drawing - SOT23



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.044	0.89	-	1.12
A1	.000	-	.004	0.01	-	0.10
A2	.035	.037	.040	0.88	0.95	1.02
b	.012	-	.020	0.30	-	0.51
c	.003	-	.007	0.08	-	0.18
D	.110	.114	.120	2.80	2.90	3.04
E	.082	.093	.104	2.10	2.37	2.64
E1	.047	.051	.055	1.20	1.30	1.40
e	-	.075	-	-	1.90	BSC
e1	-	.037	-	-	0.95	BSC
L	.015	.020	.024	0.40	0.50	0.60
L1	-	.022	-	-	(0.55)	-
N	-	3	-	-	3	-
θ	0°	-	8°	0°	-	8°
aaa	-	.004	-	-	0.10	-
bbb	-	.008	-	-	0.20	-

Land Pattern - SOT23



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.087)	(2.20)
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60