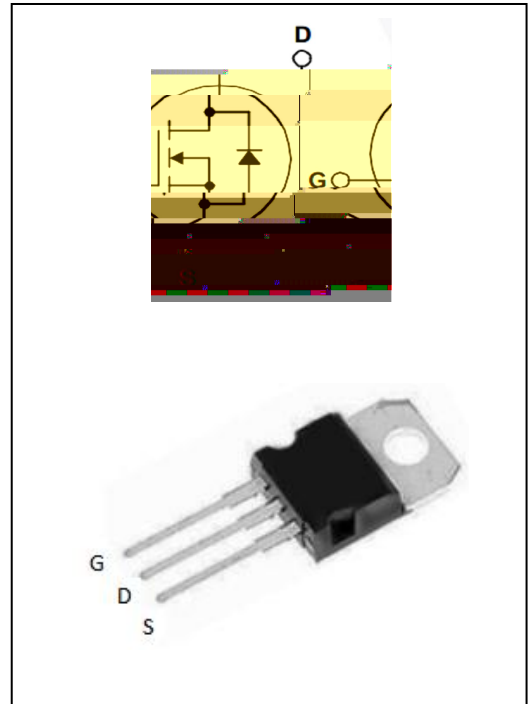


Thunder High Power Products

The TH50N06PW uses advanced technology and design to provide Excellent $R_{DS(ON)}$. It can be used in a wide variety of applications.

- $V_{DS}=60V, I_D=50A$
- Low ON Resistance
- Low Reverse transfer capacitances
- 100% Single Pulse avalanche energy Test
- Power switching application
- Load switch

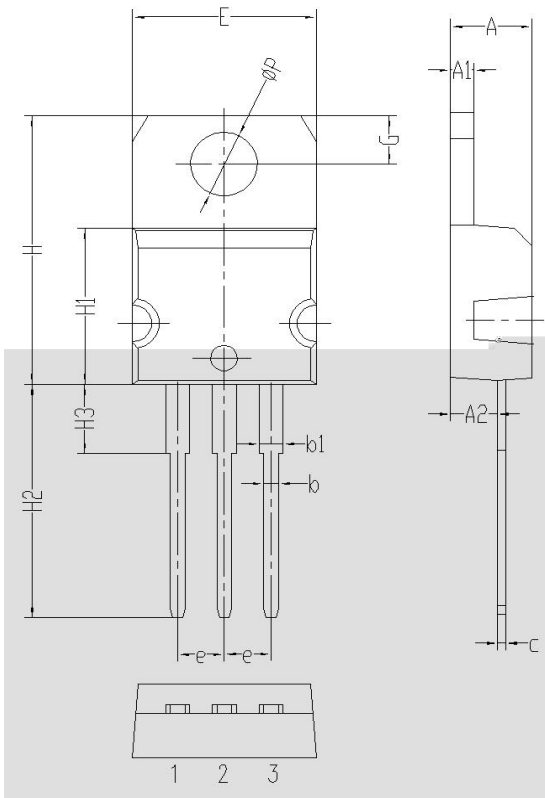


@ $T_a=25$ (unless otherwise specified)

V_{DSS}	Drain-to-Source Breakdown Voltage	60	V
I_D	Drain Current (continuous) at $T_c=25$	50	A
I_{DM}	Drain Current (pulsed)	200	A
V_{GS}	Gate to Source Voltage	+/-20	V
P_{tot}	Total Dissipation at $T_c=25$	80	W
T_j	Max. Operating Junction Temperature	175	
Eas	Single Pulse Avalanche Energy	400	mj

V_{DS}	Drain to source Voltage	$V_{GS}=0V, I_D=250\text{ A}$	60			V
$R_{DS(on)}$	Static Drain-to-Source on-Resistance	$V_{GS}=10V, I_D=25A$		16.0	23.0	m
$V_{GS(th)}$	Gated Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\text{ A}$	2	3.1	4	V
V_{SD}	Diode Forward Voltage	$V_{GS}=0V, I_{DS}=25A$			1.25	V
I_{DSS}	Drain to Source leakage Current	$V_{DS}=60V, V_{GS}=0V$			1.0	A
$I_{GSS(F)}$	Gated to Source Forward Leakage	$V_{GS}=+20V,$			100	nA
$I_{GSS(R)}$	Gated to Source Reverse Leakage	$V_{GS}=-20V,$			-100	nA
C_{iss}	Input Capacitance	$V_{GS}=0V,$		1000		pF
C_{oss}	Output Capacitance	$V_{DS}=15V,$		450		pF
C_{rss}	Reverse Transfer Capacitance	$f=1.0\text{MHz}$		80		pF
*Pulse Test: Pulse Width $\leq 300\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$						

Symbol	Parameter		



Symbol	mm		
	Min		Max
A	4.05	4.25	4.45
A1	1.2	1.3	1.4
A2	2.35	2.45	2.55
b	0.60	0.8	1.00
b1	1.12	1.32	1.52
c	0.25	0.45	0.65
e	2.34	2.54	2.74
E	9.8	10.0	10.2
H	15.1	15.3	15.5
H1	8.60	8.8	9.00
H2	13.0	13.5	14.0
H3	3.80	4.0	4.20
G	2.60	2.8	3.00
ΦP	3.60	3.8	4.00

Thunder Microelectronics Incorporated Limited reserves the right to make changes without further notice to any products or specifications herein. When use the product, be sure to obtain the latest specification.

Thunder Microelectronics Incorporated Limited does not assume any liability arising out of the application or any product described herein. When using Thunder Microelectronics Incorporated Limited products in your equipment, you are requested to take adequate safety measures to prevent the equipment from causing a physical injury ,fire or other problem if any of the products become faulty.

WuXi Thunder Microelectronics Incorporated Limited
 Building E1, No.200 LingHu Road, XinWu district, WuXi, China 214135
 Tel: +86-510-85160109 Fax: +86-510-85165556