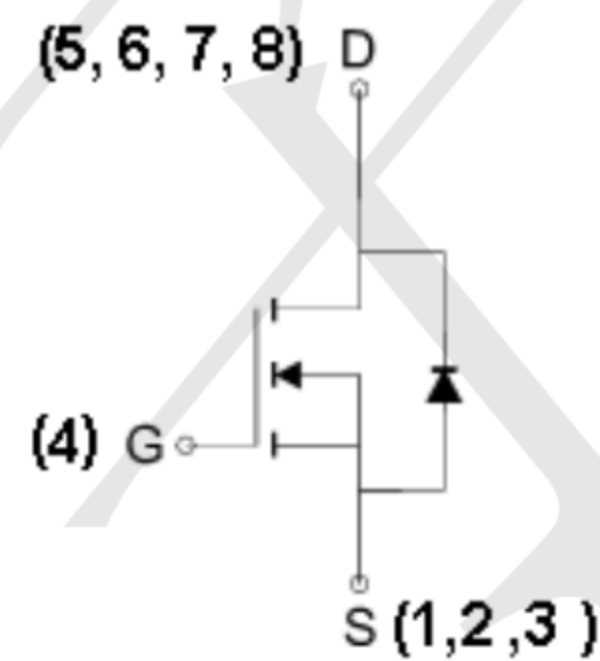
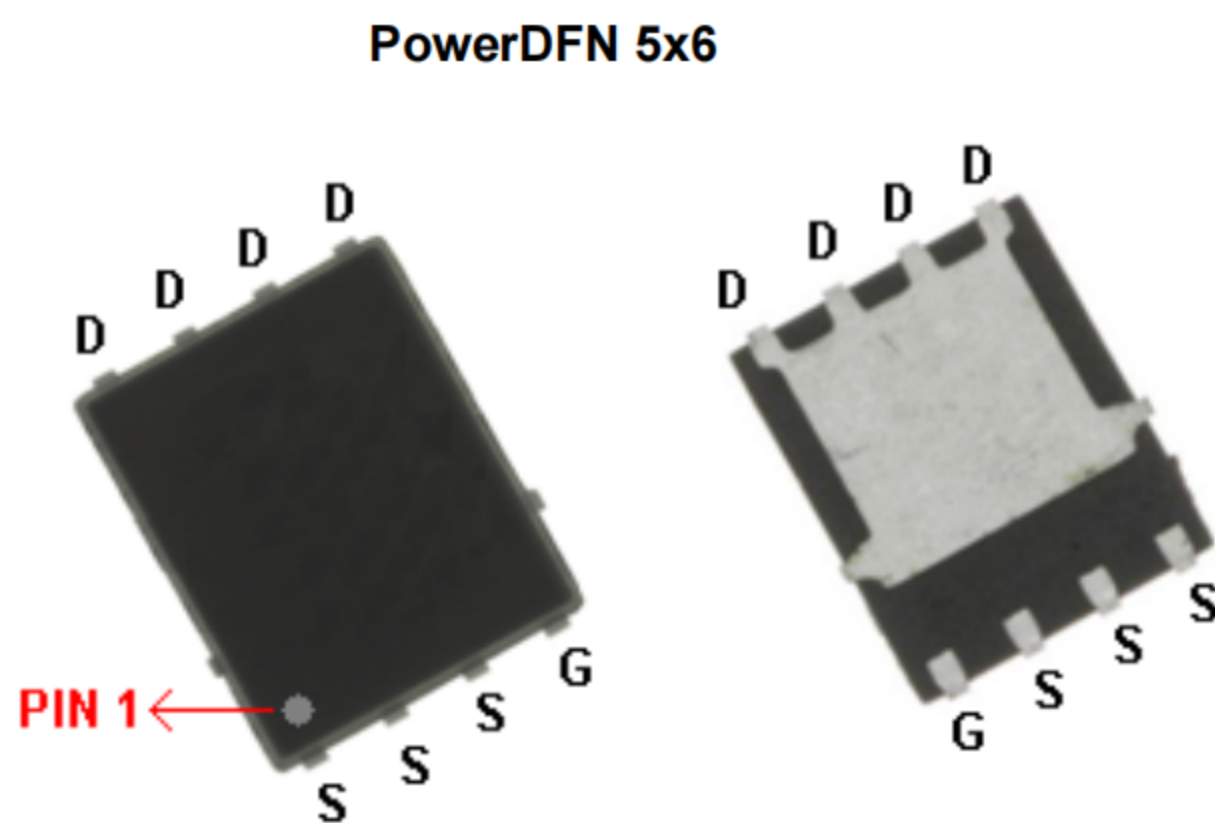


Product Summary

- ◆ $V_{DS} = 30V$ $I_D = 150A$
- ◆ $R_{DS(ON)} \leq 2.5m\Omega @ V_{GS} = 10V$
- ◆ $R_{DS(ON)} \leq 3.3m\Omega @ V_{GS} = 4.5V$

Application

- ◆ Load/Power switch
- ◆ Interfacing, logic switching
- ◆ Battery management for ultra portable electronics



N-Channel MOSFET

Marking:150N03

Absolute Maximum Ratings ($T_A = 25^\circ C$ unless otherwise specified)

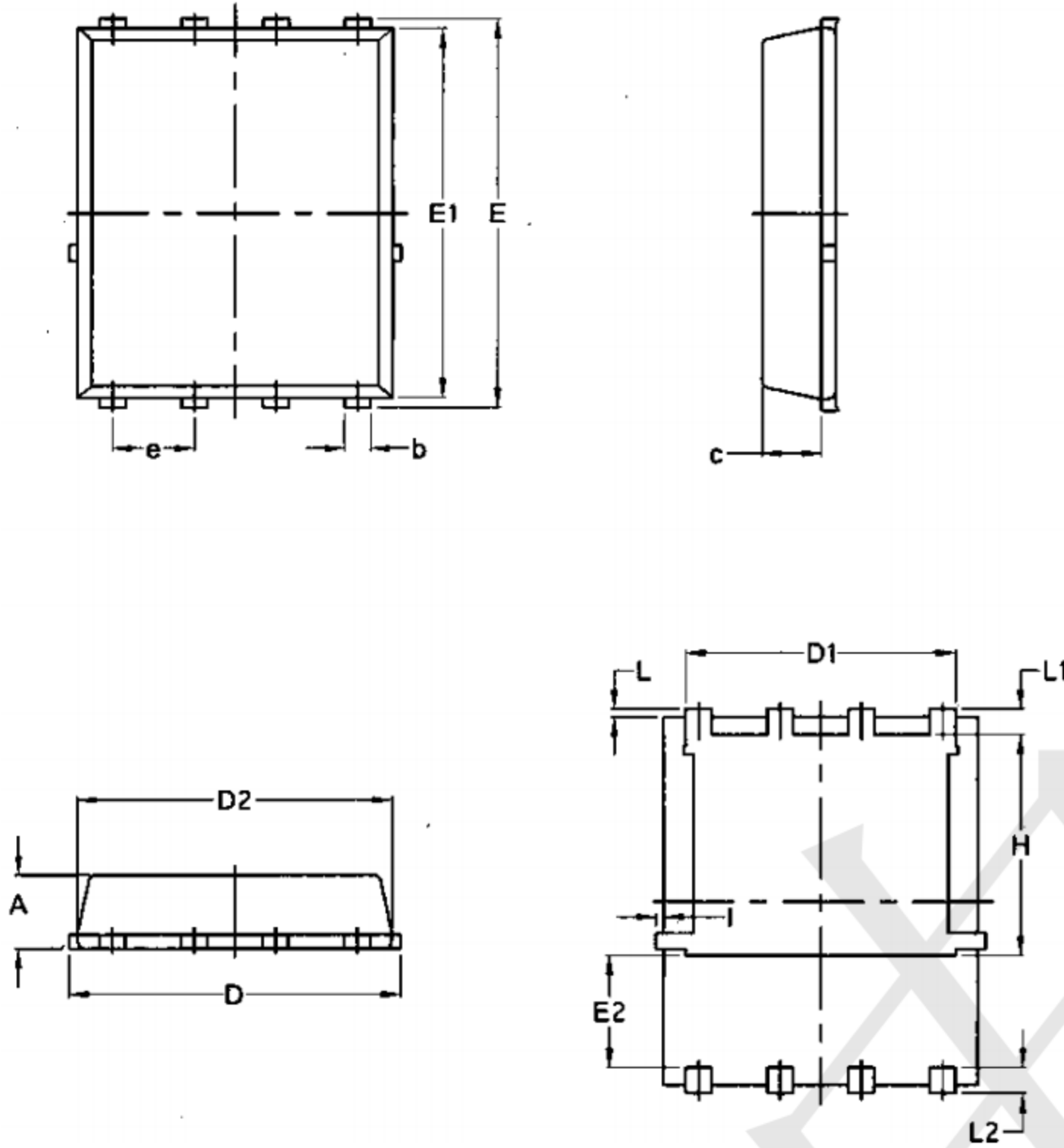
Parameter	Symbol	Maximum Ratings	Unit	
Drain-Source Voltage	V_{DS}	30	V	
Gate-Source Voltage	V_{GS}	± 20	V	
Continuous Drain		$T_C = 25^\circ C$	150	A
		$T_C = 100^\circ C$	100	
Pulsed Drain Current	I_{DM}	350	A	
Maximum Power Dissipation*	P_D	$T_A = 25^\circ C$	75	W
		$T_A = 100^\circ C$	30	
Operating Junction Temperature	T_J	-55 to 150	$^\circ C$	
Thermal Resistance-Junction to Ambient*	$R_{\theta JA}$	Steady State	45	$^\circ C/W$
Thermal Resistance-Junction to Case*	$R_{\theta JC}$		3.3	$^\circ C/W$

Electrical Characteristics (T =25°C unless otherwise specified)

Symbol	Parameter	Limit	Min	Typ	Max	Unit
STATIC						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250 μA	30			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =250 μA	1.3		3.0	V
I _{GSS}	Gate Leakage Current	V _{DS} =0V, V _{GS} =±20V			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =30V, V _{GS} =0V			1	μA
R _{DS(ON)}	Drain-Source On-State Resistance ^a	V _{GS} =10V, I _D =27A		1.9	2.5	mΩ
		V _{GS} =4.5V, I _D =20A		2.5	3.3	
V _{SD}	Diode Forward Voltage	I _S =2.8A, V _{GS} =0V		0.75	1.1	V
DYNAMIC						
Q _g	Total Gate Charge	V _{DS} =15V, V _{GS} =4.5V, I _D =27A		58		nC
Q _{gs}	Gate-Source Charge			23		
Q _{gd}	Gate-Drain Charge			30		
C _{iss}	Input Capacitance	V _{DS} =15V, V _{GS} =0V, F=1MHz		5930		pF
C _{oss}	Output Capacitance			660		
C _{rss}	Reverse Transfer Capacitance			220		
R _g	Gate-Resistance	V _{DS} =0V, V _{GS} =0V, F=1MHz		0.85		Ω
t _{d(on)}	Turn-On Delay Time	V _{DD} =15V, R _L =15Ω I _D =1A, V _{GEN} =10V R _G =6Ω		36		Ns
t _r	Turn-On Rise Time			23		
t _{d(off)}	Turn-Off Delay Time			170		
t _f	Turn-Off Fall Time			44		



Package Outline Dimensions PDFN5*6-8L



Symbol	Common			
	mm		Inch	
	Min	Max	Min	Max
A	1.03	1.17	0.0406	0.0461
b	0.34	0.48	0.0134	0.0189
c	0.824	0.0970	0.0324	0.082
D	4.80	5.40	0.1890	0.2126
D1	4.11	4.31	0.1618	0.1697
D2	4.80	5.00	0.1890	0.1969
E	5.95	6.15	0.2343	0.2421
E1	5.65	5.85	0.2224	0.2303
E2	1.60	/	0.0630	/
e	1.27 BSC		0.05 BSC	
L	0.05	0.25	0.0020	0.0098
L1	0.38	0.50	0.0150	0.0197
L2	0.38	0.50	0.0150	0.0197
H	3.30	3.50	0.1299	0.1378
I	/	0.18	/	0.0070