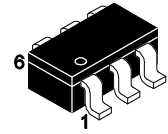


DN3402

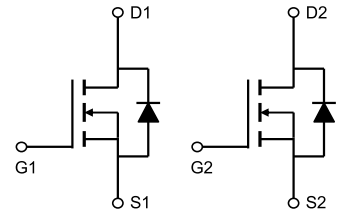
30V N-Channel Enhancement Mode MOSFET



SOT23-6L

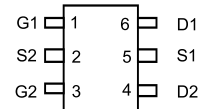
1. FEATURES

- ESD Protected
- $R_{DS(ON)} < 45m\Omega$ @ $V_{GS} = 10V$, $I_D = 3.5A$
- $R_{DS(ON)} < 60m\Omega$ @ $V_{GS} = 4.5V$, $I_D = 2A$
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
DN3402		3000/Tape&Reel



3. Absolute Maximum Ratings (TA =25 °C unless otherwise noted)

Parameter		Symbol	Limits	Unit
Drain-Source Voltage		V _{DS}	30	V
Gate-Source Voltage		V _{GS}	±20	V
Drain Current-Continuous		I _D	4	A
Drain Current-Pulsed		I _{DM}	16	A
Power Dissipation	T _a =25 °C	PD	1.25	W
	Derate above 25 °C		10	mW/°C
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55~+150	°C
Typical Thermal resistance-Junction to Ambient		R _{θJA}	100	°C/W



4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

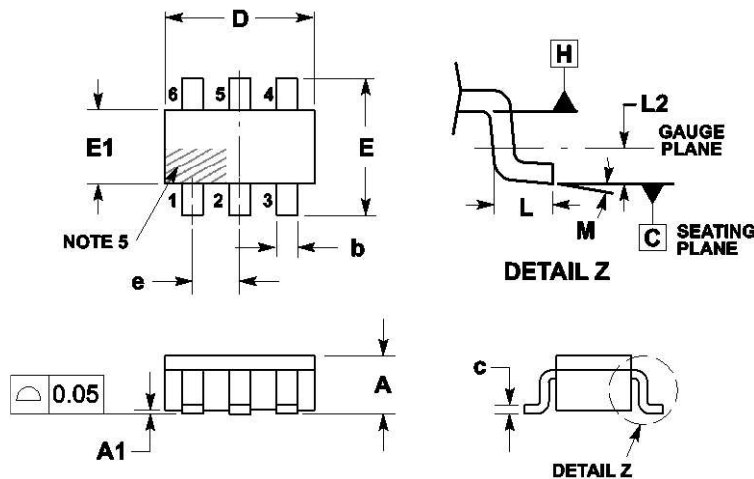
Parameter	Symbol	Min.	Typ.	Max.	Unit
Static					
Drain-Source Breakdown Voltage (VGS =0V ID =250μA)	BVDSS	30	-	-	V
Gate Threshold Voltage (VDS =VGS ,ID =250μA)	VGS(th)	1	1.5	3	V
Drain-Source On-State Resistance (VGS =10V, ID =3.5A) (VGS =4.5V, ID =2A)	RDS(ON)	- -	30 40	45 60	mΩ mΩ
Zero Gate Voltage Drain Current (VDS =30V,VGS =0V)	IDSS			1	μA
Gate-Body Leakage Current (VGS =± 20V,VDS =0V)	IGSS			±10	μA
Dynamic					
Total Gate Charge	(VDS =15V, ID =2.1A,VGS =4.5V)	Qg	-	4.1	nC
Gate-Source Charge		Qgs	-	1.5	
Gate-Drain Charge		Qgd	-	1.2	
Input Capacitance	(VDS =15V, VGS =0V,f=1.0MHZ)	Ciss	-	470	PF
Output Capacitance		Coss	-	65	
Reverse Transfer Capacitance		Crss	-	19	
Turn-on Delay Time	(VDD =15V, ID =1A,VGS =4.5V, RG=6Ω)	td(on)	-	2	nS
Turn-on Rise Time		tr	-	4	
Turn-Off Delay Time		td(off)	-	16	
Turn-Off Fall Time		tf	-	4	
Drain-Source Diode Characteristics					
Diode Forward Voltage (VGS =0V,IS =1.0A)	VSD	-	0.8	1.2	V
Diode Forward Current	IS	-	-	2.2	A



6.OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
A1	0.01	0.06	0.10	0.0004	0.002	0.004
b	0.25	0.38	0.50	0.010	0.015	0.020
c	0.10	0.18	0.26	0.004	0.007	0.010
D	2.90	3.00	3.10	0.114	0.118	0.122
E	2.50	2.75	3.00	0.098	0.108	0.118
E1	1.30	1.50	1.70	0.051	0.059	0.067
e	0.85	0.95	1.05	0.033	0.037	0.041
L	0.20	0.40	0.60	0.008	0.016	0.024
L2	0.25REF			0.010REF		
M	0°	---	10°	0°	---	10°

7.SOLDERING FOOTPRINT

