



PJ4N3KDW

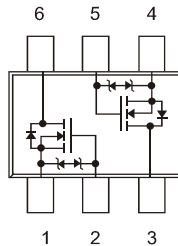
30V Dual N-Channel Enhancement Mode MOSFET - ESD Protected

FEATURES

- $R_{DS(ON)}$, V_{GS} @2.5V, I_{DS} @1mA=7.0Ω
- $R_{DS(ON)}$, V_{GS} @4.0V, I_{DS} @10mA=5.0Ω
- Advanced Trench Process Technology
- High Density Cell Design For Ultra Low On-Resistance
- The MOSFET elements are independent, eliminating interference
- Mounting cost and area can be cut in half
- Very Low Leakage Current In Off Condition
- Specially Designed for Battery Operated Systems, Solid-State Relays
Drivers : Relays, Displays, Lamps, Solenoids, Memories, etc.
- Low voltage drive (2.5V) makes this device ideal for portable equipment
- ESD Protected 2KV HBM
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

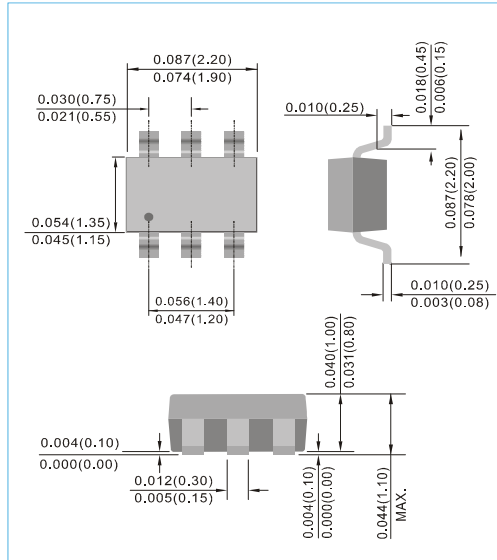
MECHANICAL DATA

- Case: SOT-363 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight: 0.0002 ounces, 0.006 grams
- Marking : 4N3



SOT-363

Unit : inch(mm)



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	100	mA
Pulsed Drain Current ⁽¹⁾	I_{DM}	800	mA
Maximum power Dissipation	P_D	200 120	mW
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^\circ\text{C}$
Junction-to Ambient Thermal Resistance (PCB mounted) ²	$R_{\theta JA}$	625	$^\circ\text{C/W}$

- Note: 1. Maximum DC current limited by the package
2. Surface mounted on FR4 board, $t \leq 5$ sec



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ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Units
Static						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =10uA	30	-	-	V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =3.0V, I _D =100uA	0.8	-	1.5	V
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =2.5V, I _D =1mA	-	-	7.0	Ω
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =4.0V, I _D =10mA	-	-	5.0	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =30V, V _{GS} =0V	-	-	1	uA
Gate Body Leakage	I _{GSS}	V _{GS} =±20V, V _{DS} =0V	-	-	5	uA
Forward Transconductance	g _{fs}	V _{DS} =3V, I _D =10mA	10	-	-	mS
Diode Forward Voltage	V _{SD}	I _S =115mA, V _{GS} =0V	-	0.78	1.3	V
Dynamic						
Total Gate Charge	Q _g	V _{DS} =15V, I _D =10mA V _{GS} =4.5V	-	-	0.8	nC
Turn-On Delay Time	td _(ON)	V _{DD} =5V, R _L =500Ω I _b =10mA, V _{GEN} =5V R _G =10Ω	-	30	35	ns
Rise Time	t _r		-	8.5	12	
Turn-Off Delay Time	td _(OFF)		-	84	100	
Fall time	t _f		-	32	40	
Input Capacitance	C _{iss}	V _{DS} =5V, V _{GS} =0V f=1.0MHz	-	25	35	pF
Output Capacitance	C _{oss}		-	8	12	
Reverse Transfer Capacitance	C _{rss}		-	2.5	5	



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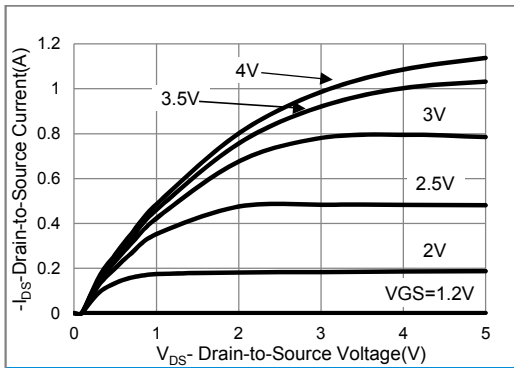


Fig.1 On-Region Characteristics.

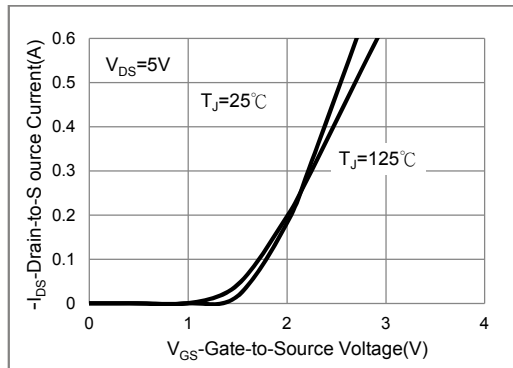


Fig.2 Transfer Characteristics

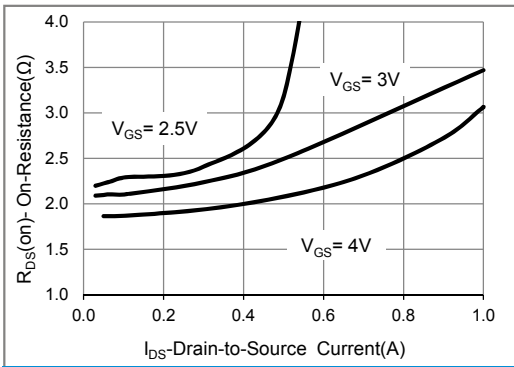


Fig.3 On-Resistance vs. Drain current

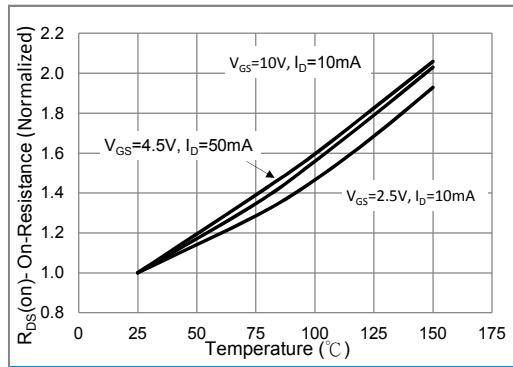


Fig.4 On-Resistance vs. Junction

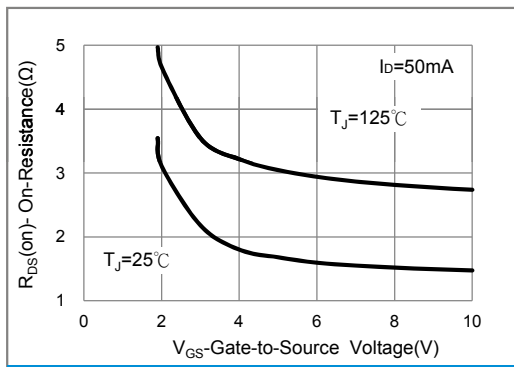


Fig.5 On-Resistance Variation with V_GS.

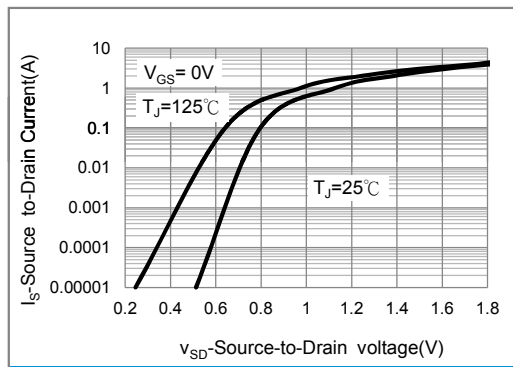


Fig.6 Body Diode Characteristics

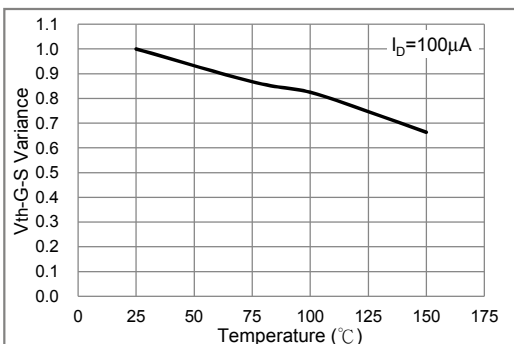


Fig.7 Threshold Voltage Variation with Temperature

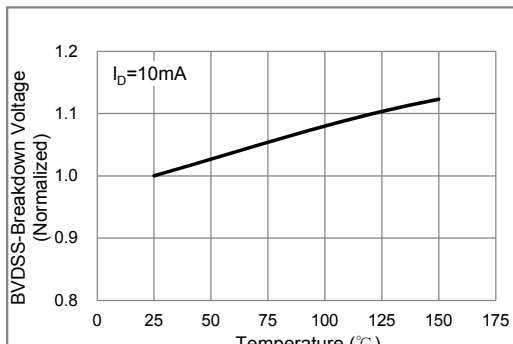
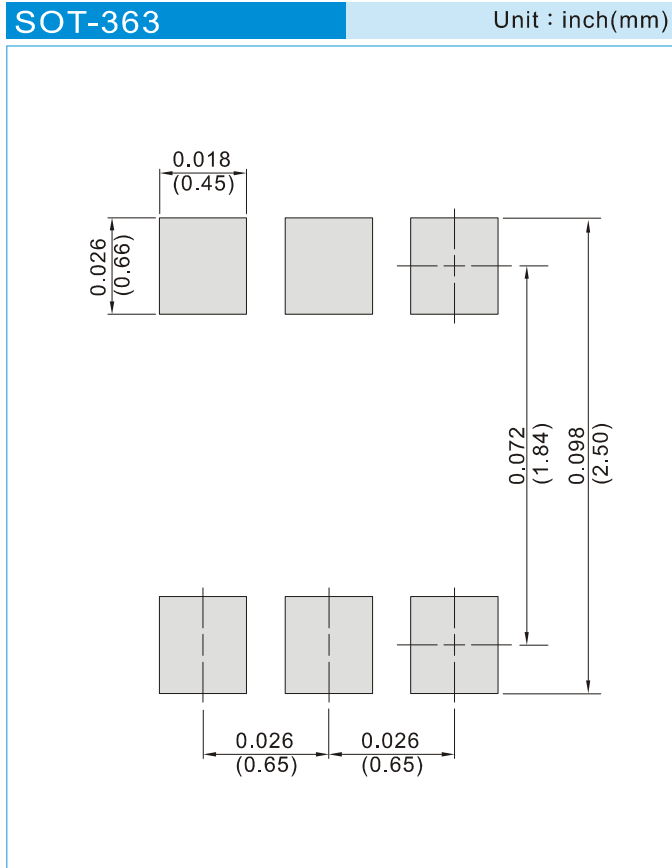


Fig.8 Breakdown Voltage Variation vs. Temperature



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



PJ4N3KDW

Part No_packing code_Version

PJ4N3KDW_R1_00001

PJ4N3KDW_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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