



PJ4N3KDW

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

FEATURES

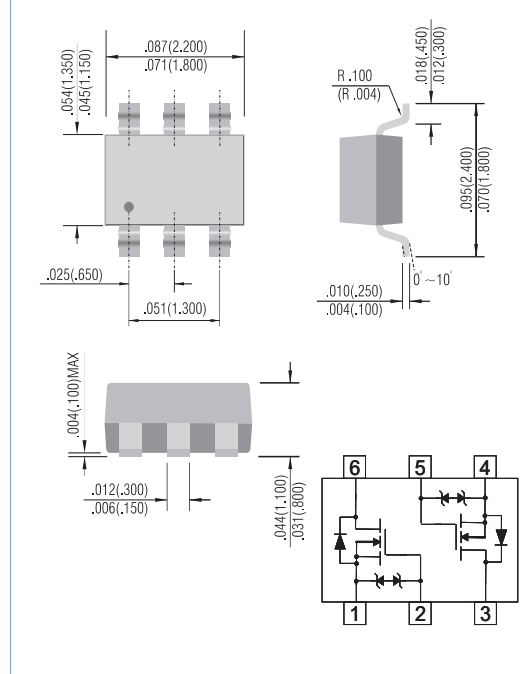
- $R_{DS(ON)}, V_{GS} @ 2.5V, I_{DS} @ 1mA = 7.0\Omega$
- $R_{DS(ON)}, V_{GS} @ 4.0V, I_{DS} @ 10mA = 5.0\Omega$
- Advanced Trench Process Technology
- High Density Cell Design For Ultra Low On-Resistance
- The MOSFET elements are independent, eliminating interference
- Mounting cost and area can be 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
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOT-363 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- 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, $t < 5$ sec

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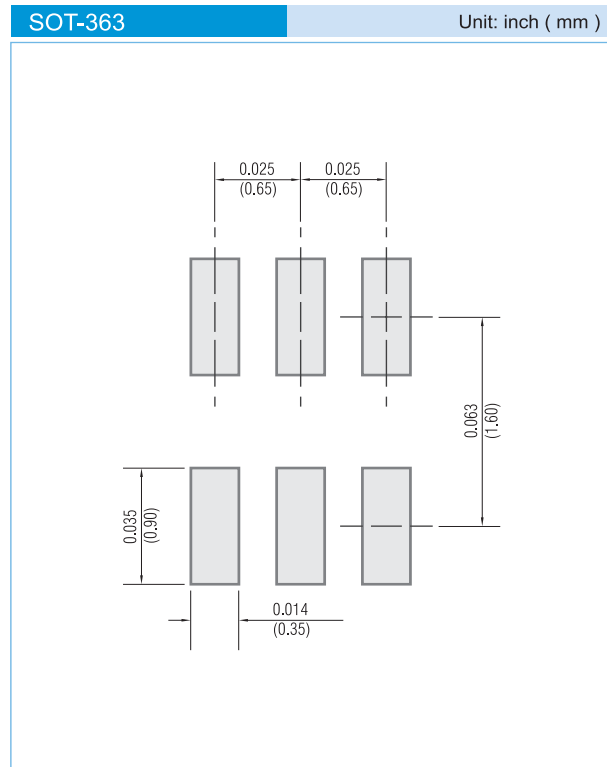
ELECTRICAL CHARACTERISTICS (T_A=25°C)

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 _{riss}		-	2.5	5	



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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

LEGAL STATEMENT

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