PJ4N3KDW

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

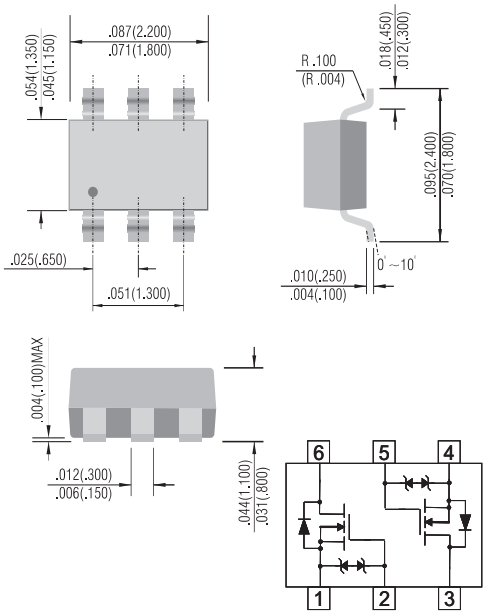
FEATURES

- $R_{DS(ON)}$, 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
- 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°C)

Parameter		Symbol	Limit	Units
Drain-Source Voltage		V_{DS}	30	V
Gate-Source Voltagee		V_{GS}	± 20	V
Continuous Drain Current		I_D	100	mA
Pulsed Drain Current [1]		I_{DM}	800	mA
Maximum power Dissipation	T_A=25°C T_A=75°C	P_D	200 120	mW
Operating Junction and Storage Temperature Range		T_J,T_{STG}	-55 to + 150	°C
Junction-to Ambient Thermal Resistance (PCB mounted)[2]		$R_{\theta JA}$	625	°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_D=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=1.0MH_Z	-	25	35	pF
Output Capacitance	C_{oss}		-	8	12	
Reverse Transfer Capacitance	C_{rss}		-	2.5	5	

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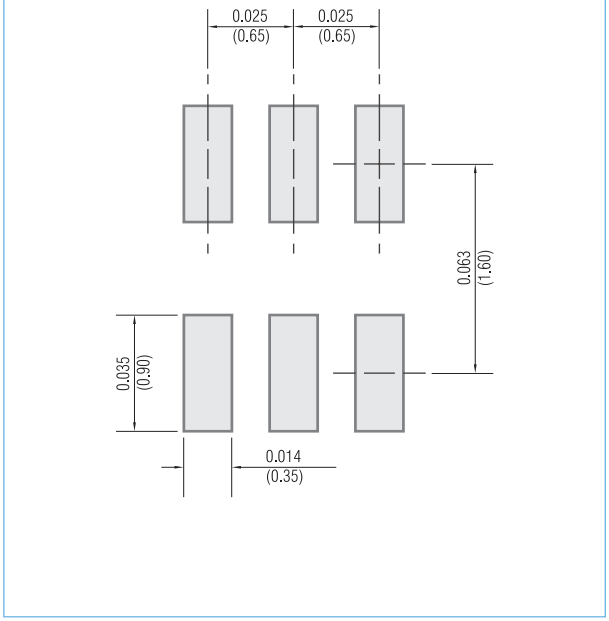
MOUNTING PAD LAYOUT

SOT-363 Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 10K per 13" plastic Reel

  T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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