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FDY302NZ

Single N-Channel 2.5V Specified PowerTrench® MOSFET

General Description

This Single N-Channel MOSFET has been designed using Fairchild Semiconductor's advanced Power Trench process to optimize the $R_{DS(ON)}$ @ $V_{GS} = 2.5V$.

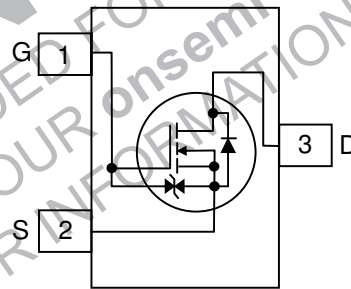
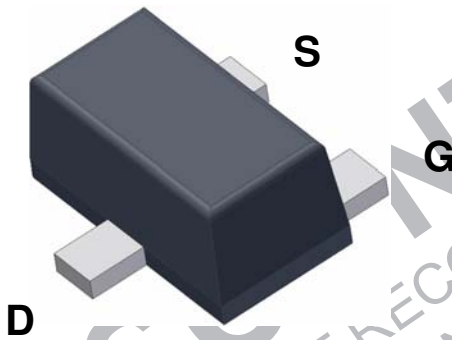
Applications

- Li-Ion Battery Pack



Features

- 600 mA, 20 V $R_{DS(ON)} = 300\ m\Omega$ @ $V_{GS} = 4.5\ V$
 $R_{DS(ON)} = 500\ m\Omega$ @ $V_{GS} = 2.5\ V$
- ESD protection diode (note 3)
- RoHS Compliant



Absolute Maximum Ratings

$T_A = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{DS}	Drain-Source Voltage	20	V
V_{GS}	Gate-Source Voltage	± 12	V
I_D	Drain Current – Continuous (Note 1a)	600	mA
	– Pulsed	1000	
P_D	Power Dissipation (Steady State) (Note 1a)	625	mW
	(Note 1b)	446	
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	$^\circ C$

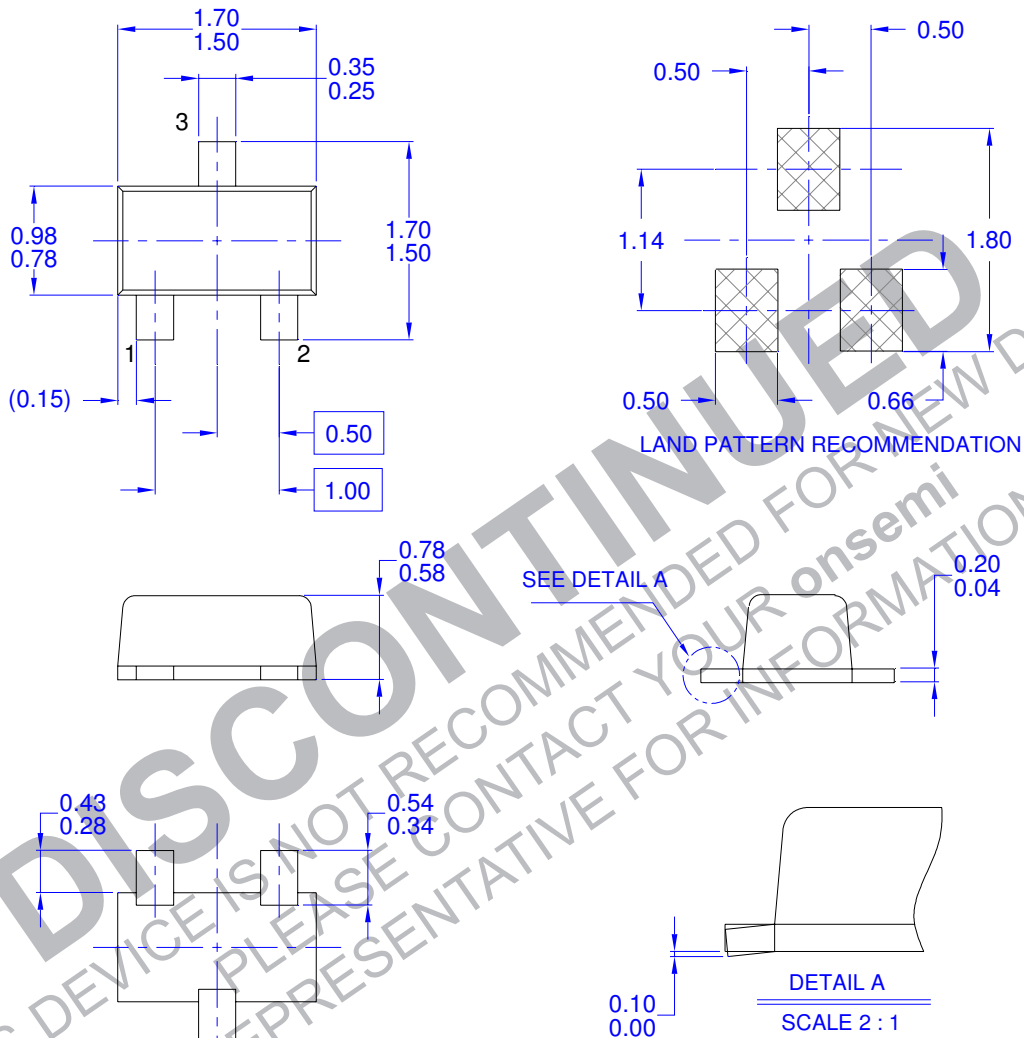
Thermal Characteristics

$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient (Note 1a)	200	$^\circ C/W$
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient (Note 1b)	280	

Package Marking and Ordering Information

Device Marking	Device	Reel Size	Tape width	Quantity
F	FDY302NZ	7"	8 mm	3000 units

Dimensional Outline and Pad Layout






- NOTES: UNLESS OTHERWISE SPECIFIED
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 - B) ALL DIMENSIONS ARE IN MILLIMETERS.
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CTL™	GTO™	Saving our world, 1mW/W/kW at a time™	TinyPower™
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DEUXPEED®	ISOPLANAR™	SmartMax™	TinyWire™
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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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