

FDS4435BZ

P-Channel PowerTrench® MOSFET -30V, -8.8A, 20mΩ

Features

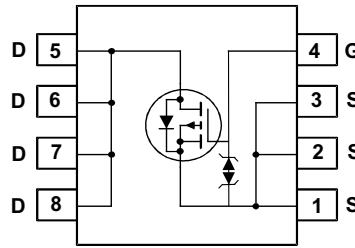
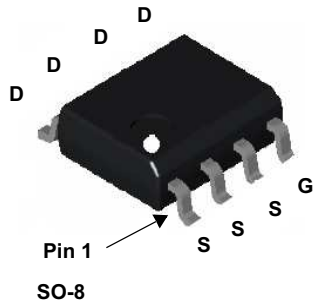
- Max $r_{DS(on)}$ = 20mΩ at $V_{GS} = -10V$, $I_D = -8.8A$
- Max $r_{DS(on)}$ = 35mΩ at $V_{GS} = -4.5V$, $I_D = -6.7A$
- Extended V_{GSS} range (-25V) for battery applications
- HBM ESD protection level of ±3.8KV typical (note 3)
- High performance trench technology for extremely low $r_{DS(on)}$
- High power and current handling capability
- Termination is Lead-free and RoHS compliant



General Description

This P-Channel MOSFET is produced using Fairchild Semiconductor's advanced PowerTrench® process that has been especially tailored to minimize the on-state resistance.

This device is well suited for Power Management and load switching applications common in Notebook Computers and Portable Battery Packs.



MOSFET Maximum Ratings $T_A = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{DS}	Drain to Source Voltage	-30	V
V_{GS}	Gate to Source Voltage	±25	V
I_D	Drain Current -Continuous	$T_A = 25^\circ C$ (Note 1a)	-8.8
	-Pulsed		-50
P_D	Power Dissipation	$T_A = 25^\circ C$ (Note 1a)	2.5
	Power Dissipation	$T_A = 25^\circ C$ (Note 1b)	1.0
E_{AS}	Single Pulse Avalanche Energy	(Note 4)	24
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	$^\circ C$

Thermal Characteristics

$R_{\theta JC}$	Thermal Resistance, Junction to Case	25	$^\circ C/W$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Note 1a)	50	

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
FDS4435BZ	FDS4435BZ	SO-8	13"	12mm	2500units