ACE142601B

P-Channel Enhancement Mode Power MOSFET

Description

- Power Management
- Load Switch
- Battery Switch

Features

- V_{DS}= -40V
- I_D = -3.5A
- $R_{DS(ON)}$@V_{GS} = -10V, 49 mΩ (TYP)
- $R_{DS(ON)}$@V_{GS} = -4.5V, 62 mΩ (TYP)

Absolute Maximum Ratings

At T_A=25°C unless otherwise noted

Parameter		Symbol	Max	Unit
Drain-Source Voltage		V_{DSS}	-40	V
Gate-Source Voltage		V_{GSS}	±20	V
Drain Current (Continuous) *(1)	T_A=25°C	I_D	-3.5	A
	T_A=70°C		-2.8	
Drain Current (Pulse) *(2)		I_{DM}	-14	A
Power Dissipation	T_A=25°C	P_D	1.25	W
Operating temperature / Storage temperature		T_J/T_{STG}	-55 to 150	°C

Thermal Resistance Ratings

Parameter		Symbol	Maximum	Units
Maximum Junction-to-Ambient *(3)	t ≤ 10 s	R_{thJA}	100	°C/W

Note:

1: The current rating is based on the t≤ 10s junction to ambient thermal resistance rating.

2: Repetitive rating, pulse width limited by junction temperature.

3: The value of $R_{\theta JA}$ is measured with the device mounted on 1in^2 FR-4 board with 2oz. Copper, in a still air environment with TA=25°C. The value in any given application depends on the user's specific board design.

Ordering Information

ACE142601B XX + H

- Halogen - free
- Pb - free
- BM: SOT-23-3

Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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