Product Brief

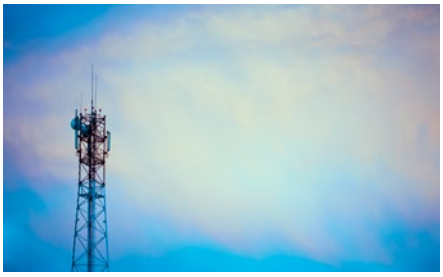
Small Signal 100V MOSFETs in TSOP-6

Space Saving Package for Fast Switching Applications

Infineon has launched 4 new Small Signal MOSFETs in the TSOP-6 package: 3 new 100V and 1 new 75V part.

These are new space saving package versions of industry standard devices in the respective $R_{DS(on)}$ class. The low Q_g and low thermal resistance make them ideally suitable for a wide variety of applications including LED Lighting, SMPS and Motor Control.

All products are qualified to AEC Q101, making them suitable for Automotive applications such as ABS and Body Control Unit (BCU) and all applications demanding the highest levels of quality.



Product Portfolio Small Signal 75V and 100V TSOP-6

Product	V_{DS} [V]	$R_{DS(on)}$ @V_{GS}=10V [mΩ]	$I_{D(max)}$ [A]	$V_{GS(th)}$ [V]	$Q_{G(th)}$ [nC]	R_{thJA}* K/W
BSL716SN	75	150	2.5	0.8…1.8	13.1	62.5
BSL296SN	100	460	1.4	0.8…1.9	13.1	62.5
BSL372SN	100	220	2.0	0.8...1.8	14.3	62.5
BSL373SN	100	230	2.0	2.1...4.0	9.3	62.5

* Device on 40mm x 40mm x 1.5mm epoxy PCB FR4 with 6cm² (one layer 70µm thick) copper area for drain connection. PCB is vertical in still air (t < 5s).

Key Features

- Logic level rated with low Q_g
- Avalanche rated
- Qualified to AEC Q101
- RoHS and halogen free

Key Benefits

- Fast switching
- Space saving TSOP-6 package
- Easy interface to 4.5V MCU
- Suitable for Automotive and high quality requirement applications

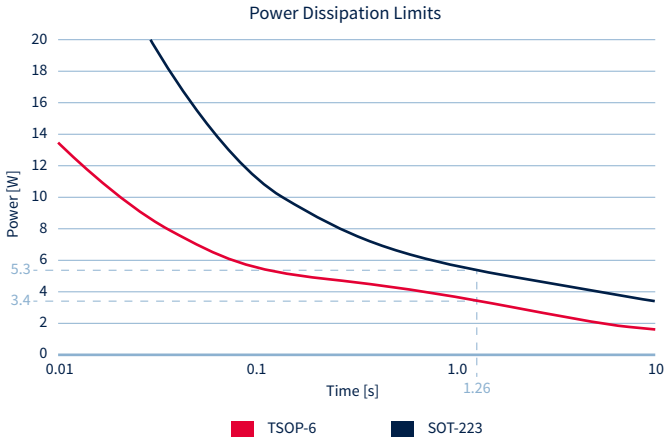
Applications

- Primary Side 24V and 48V Systems
- Synchronous Rectification
- LED Lighting
- Motor Control
- Automotive ABS
- Automotive Body Control Units

www.infineon.com/smallsignal

Small Signal 100V MOSFETs in TSOP-6

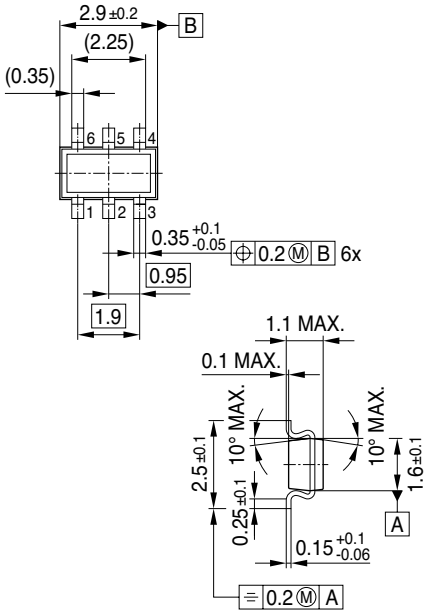
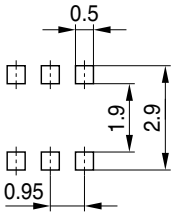
Space Saving Package for Fast Switching Applications



The first thermal performance parameter that is normally considered is R_{thJA} (junction to ambient thermal resistance). R_{thJA} for TSOP-6 is 62.5K/W* for half the size of SOT-223. A comparison of the single-pulse power curves reveals the difference in the thermal performance of TSOP-6 and SOT-223 and the ability of these two packages to handle surge currents. The graph shows the power dissipation curves for each package. For above 10s the curves show the limitations of the PCB. Below 10ms the curves reflect the limitations of the chip size. TSOP-6 can dissipate a 3.4W pulse for a duration of 1.26s.

* Device on 40mm x 40mm x 1.5mm epoxy PCB FR4 with 6cm² (one layer 70µm thick) copper area for drain connection. PCB is vertical in still air (t < 5s).

Package Information TSOP-6

TSOP-6	Package Outline	Footprint
		

Note:
Wave soldering possible depending on customers' process conditions

Published by
Infineon Technologies Austria AG
9500 Villach, Austria

Visit us:
www.infineon.com

Order Number: B111-I0003-V1-7600-AP-EC
Date: 01 / 2015