

NVC3S5A51PLZ

Advance Information Power MOSFET –60V, 250mΩ, –1.8A, P-Channel



www.onsemi.com

Automotive Power MOSFET designed to minimize gate charge and low on resistance. AEC-Q101 qualified MOSFET and PPAP capable suitable for automotive applications.

Features

- 4V drive
- High ESD protection
- Low On-Resistance
- AEC-Q101 qualified and PPAP capable
- Pb-Free, Halogen Free and RoHS compliance

Typical Applications

- Reverse Battery Protection
- High Side Load Switch
- Automotive Body Controllers

SPECIFICATIONS

ABSOLUTE MAXIMUM RATING at Ta = 25°C (Note 1)

Parameter	Symbol	Value	Unit
Drain to Source Voltage	V _{DSS}	–60	V
Gate to Source Voltage	V _{GSS}	±20	V
Drain Current (DC) (Note 2)	I _D	–1.8	A
Drain Current (DC) (Note 3)		–1.7	A
Drain Current (Pulse) PW ≤ 10μs, duty cycle ≤ 1%	I _{DP}	–7.2	A
Power Dissipation Ta=25°C(Note 2)	P _D	1.2	W
Power Dissipation Ta=25°C(Note 3)		0.8	W
Junction Temperature and Storage Temperature	T _J , T _{stg}	–55 to +175	°C

Note 1 : Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL RESISTANCE RATINGS

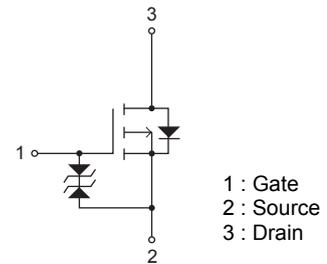
Parameter	Symbol	Value	Unit
Junction to Ambient	(Note 2)	125	°C/W
	(Note 3)	182	°C/W

Note 2 : Surface mounted on ceramic substrate(900mm² × 0.8mm).

Note 3 : Surface mounted on FR4 board using a 92mm², 1 oz. Cu pad.

V _{DSS}	R _{DS(on)} Max	I _D Max
–60V	250mΩ@ –10V	–1.8A
	330mΩ@ –4.5V	
	350mΩ@ –4.0V	

ELECTRICAL CONNECTION P-Channel



MARKING

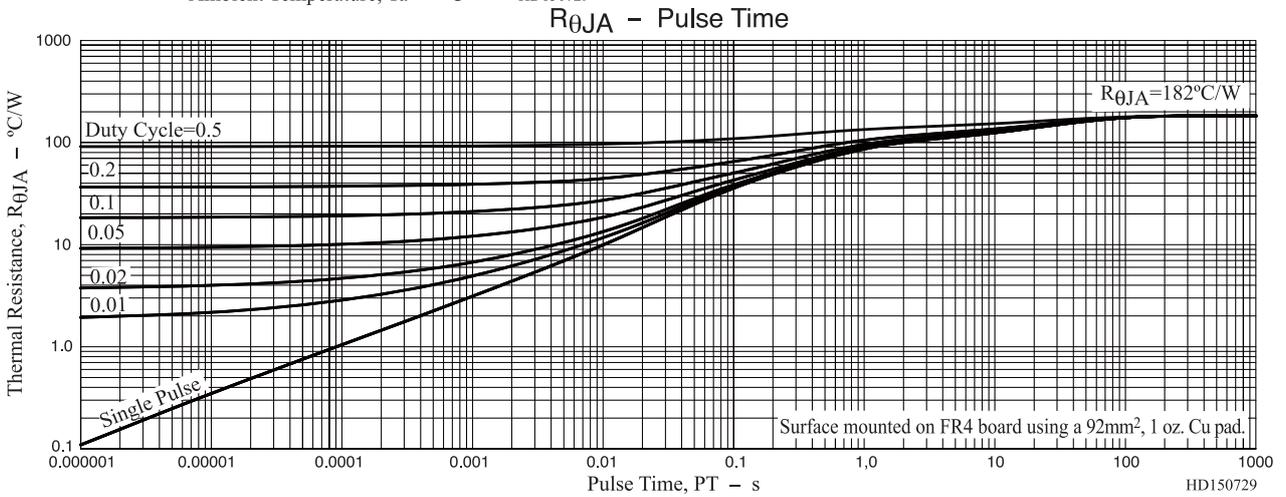
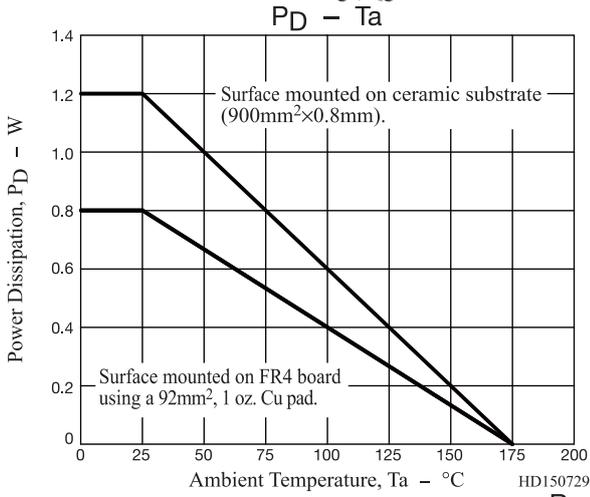
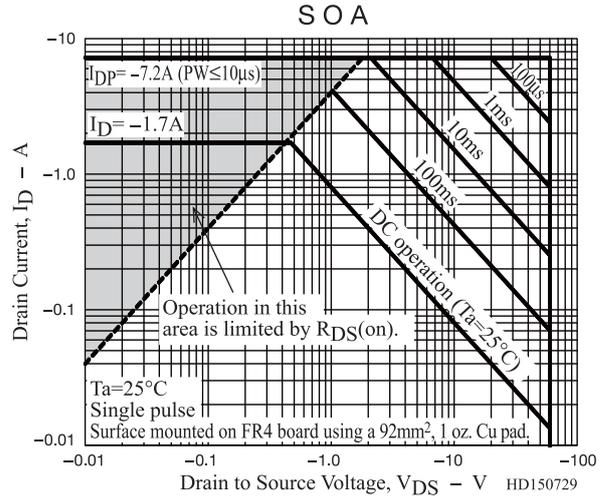
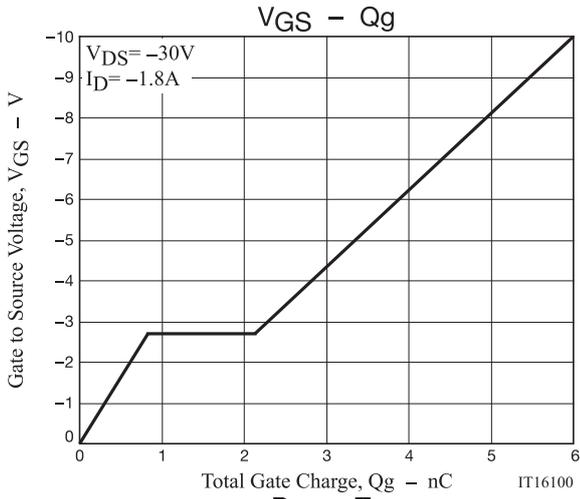


ORDERING INFORMATION

See detailed ordering and shipping information on page 6 of this data sheet.

This document contains information on a new product. Specifications and information herein are subject to change without notice.

NVC3S5A51PLZ



NVC3S5A51PLZ

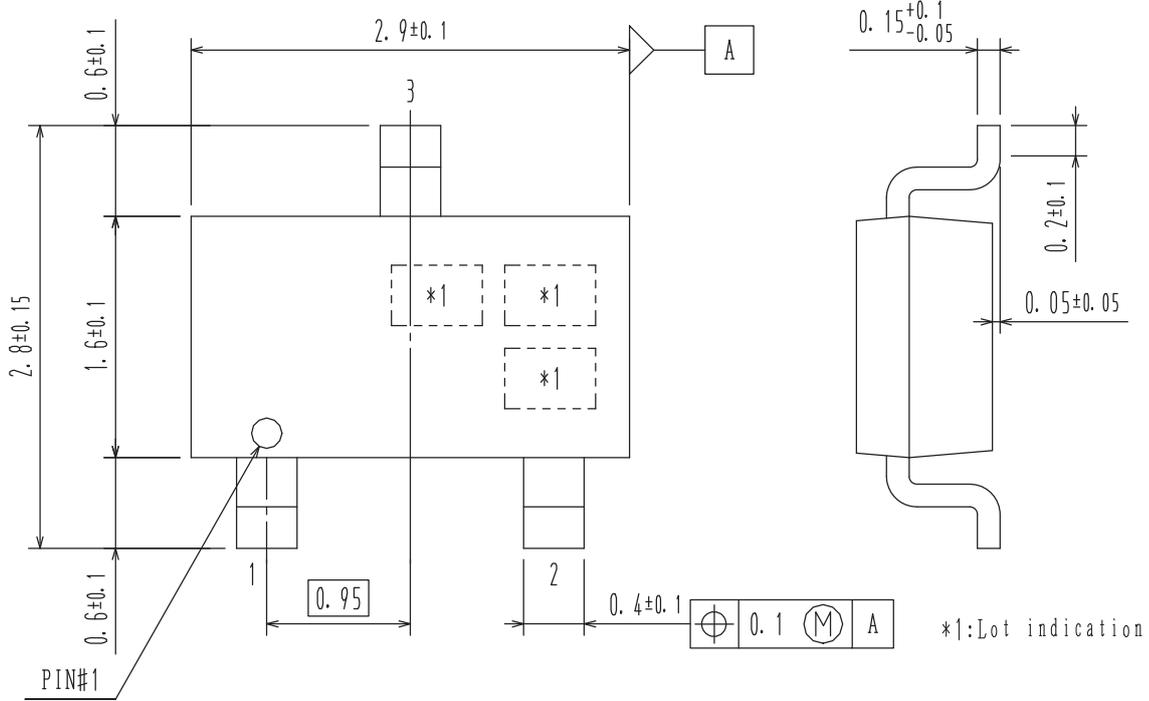
PACKAGE DIMENSIONS

unit : mm

CPH3

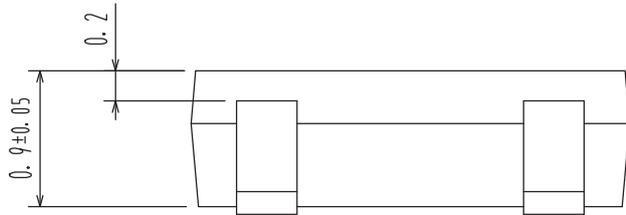
CASE 318BA

ISSUE O

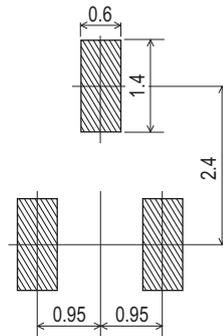


*1: Lot indication

RECOMMENDED SOLDERING FOOTPRINT



- 1 : Gate
- 2 : Source
- 3 : Drain



NVC3S5A51PLZ

ORDERING INFORMATION

Device	Marking	Package	Shipping (Qty / Packing)
NVC3S5A51PLZT1G	WH	CPH3 (Pb-Free / Halogen Free)	3,000 / Tape & Reel

† For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D. http://www.onsemi.com/pub_link/Collateral/BRD8011-D.PDF

Note on usage : Since the NVC3S5A51PLZ is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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