



DOCUMENT CHANGE REQUEST

DCR number 510 Changes required for: General
Date: 2009/05/06 Date sent: 2009/05/06
Status: IMPLEMENTED

Originator: S Jeffery - ESCC
Organisation:

Title: Transistors MOSFET P-Channel Power, based on types 2N6849 and 2N6851

Number: 5206/003 Issue: 2

Other documents affected:

Page:

See attachment

Paragraph:

See attachment

Original wording:

Proposed wording:

Update the Maximum Ratings table (see the attachment for details) so that this detail spec is clear, complete and the content and format is in-line with other detail specifications for similar Part Types.

Justification:

Improve the content and clarity of the spec.

Attachments:

5206003_Issue_3_-_Draft_A.pdf, null

Modifications:

N/A

Approval signature:

Date signed:

2009-05-06

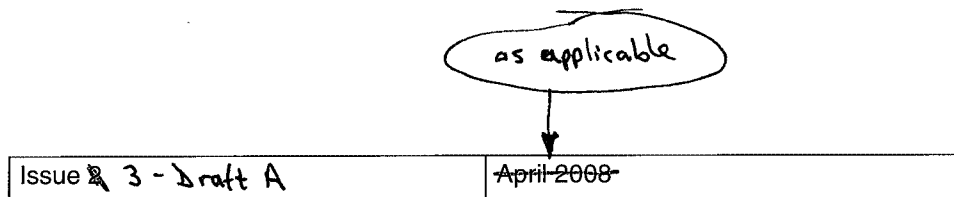


Pages 1 to 17

TRANSISTORS, POWER, MOSFET, P-CHANNEL

BASED ON TYPE 2N6849

ESCC Detail Specification No. 5206/003



Document Custodian: European Space Agency - see <https://escies.org>



as applicable

LEGAL DISCLAIMER AND COPYRIGHT

European Space Agency, Copyright © 2008. All rights reserved.

The European Space Agency disclaims any liability or responsibility, to any person or entity, with respect to any loss or damage caused, or alleged to be caused, directly or indirectly by the use and application of this ESCC publication.

This publication, without the prior permission of the European Space Agency and provided that it is not used for a commercial purpose, may be:

- copied in whole, in any medium, without alteration or modification.
- copied in part, in any medium, provided that the ESCC document identification, comprising the ESCC symbol, document number and document issue, is removed.



DOCUMENTATION CHANGE NOTICE

(Refer to <https://escies.org> for ESCC DCR content)

DCR No.	CHANGE DESCRIPTION
376	Specification up issued to incorporate editorial and technical changes per DCR.

tbd

Characteristics	Symbols	Maximum Ratings	Unit	Remarks
Drain-Source Voltage	V_{DS}	-100	V	Over T_{op} Note 3
Gate-Source Voltage	V_{GS}	± 20	V	Over T_{op}
Drain-Gate Voltage	V_{DG}	-100	V	Over T_{op}
Drain Current	I_D	-6.5	A	Continuous At $T_{case} = +25^\circ C$ Notes 2, 3
Source Current	I_S	-6.5	A	Continuous At $T_{case} = +25^\circ C$ Note 1
Drain Current Pulsed	I_{DM}	-25	A	Peak Note 1
Power Dissipation	P_{tot}	25	W	At $T_{case} \leq +25^\circ C$ Notes
Operating Temperature Range	T_{op}	-55 to +150	$^\circ C$	Note 4
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ C$	Note 4
Soldering Temperature	T_{sol}	+300	$^\circ C$	Note 5
Thermal Resistance, Junction-to-Case	$R_{th(j-c)}$	5	$^\circ C/W$	

NOTES:

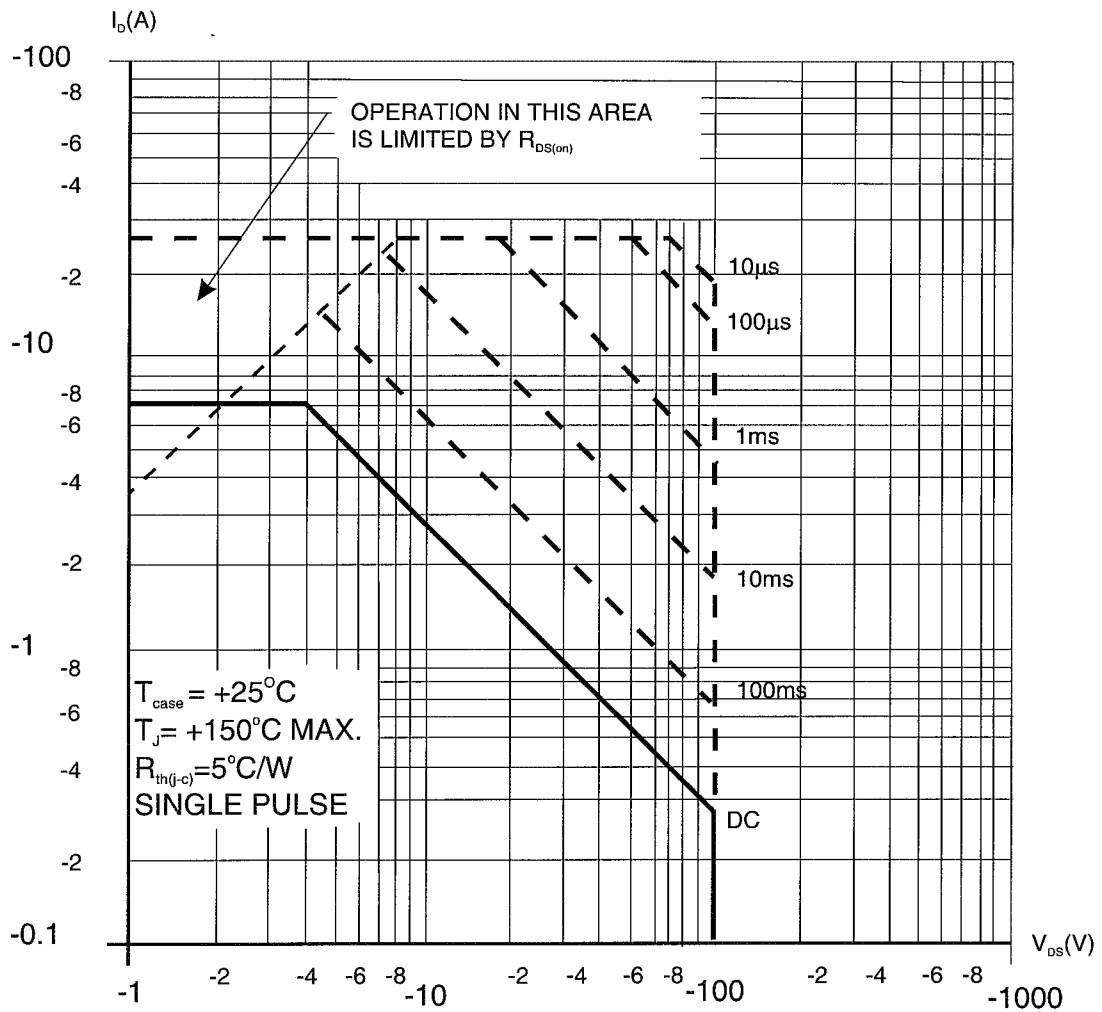
- For $T_{case} > +25^\circ C$, derate linearly to 0W at +150 $^\circ C$
- These ratings apply at the case. Leads are not capable of carrying maximum drain or source

2. For currents beyond 2mm from the case without heatsink.
 For $T_{case} > +25^{\circ}C$, I_D is derated using the following formula:

$$-I_D(A) = \sqrt{\frac{P_{rated}(W)}{0.6}}, \text{ where } P_{rated}(W) = 25 - (0.2 \times (T_{case} - 25))$$

3. Safe Operating Area applies as follows:

Maximum Safe Operating Area Graph



4. For Variants with tin-lead plating or hot solder dip lead finish all testing performed at $T_{amb} > +125^{\circ}C$ shall be carried out in a 100% inert atmosphere.
5. Duration 10 seconds maximum at a distance of not less than 1.5mm from the device body and the same lead shall not be resoldered until 3 minutes have elapsed.