



DOCUMENT CHANGE REQUEST

DCR number	510	Changes required for:	General	Originator:	S Jeffery - ESCC
Date:	2009/05/06	Date sent:	2009/05/06	Organisation:	
Status:	IMPLEMENTED				

Title:	Transistors MOSFET P-Channel Power, based on types 2N6849 and 2N6851				
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Number:	5206/003	Issue:	2		
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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

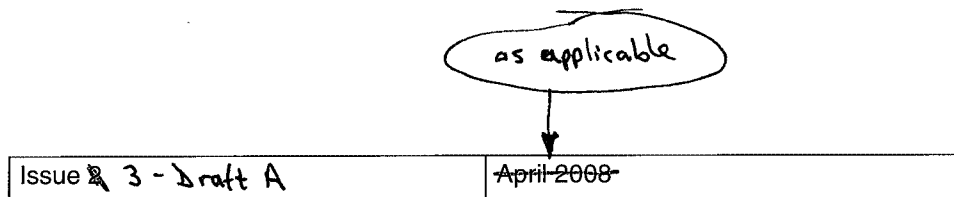


Pages 1 to 17

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

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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:

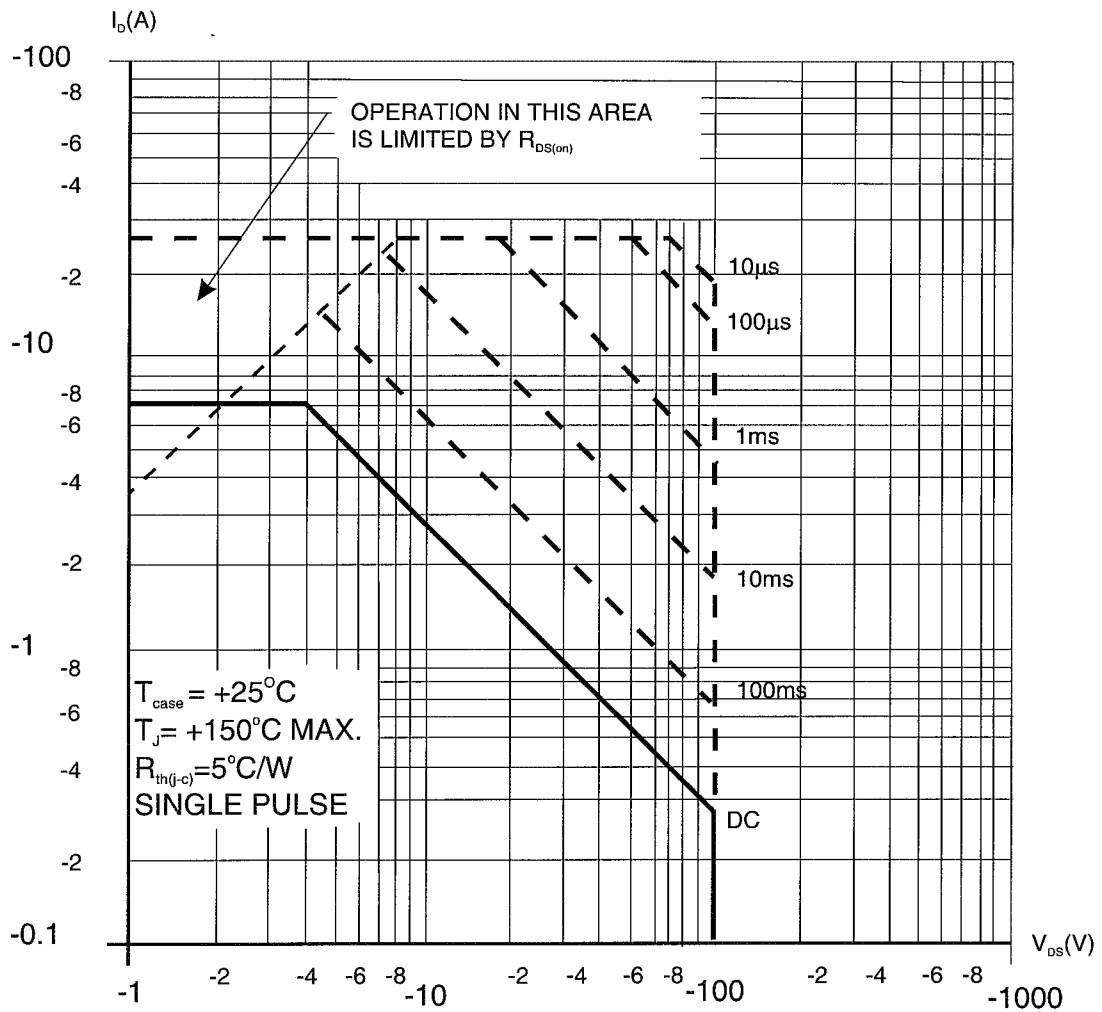
- For $T_{case} > +25^\circ C$, derate linearly to 0W at +150 $^\circ C$
- These ratings apply at the case. Leads are not capable of carrying maximum drain or source

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.