DOCUMENT CHANGE REQUEST

DCR number 509	Changes required for: General	Originator: S Jeffery - ESCC
Date: 2009/05/06	Date sent: 2009/05/06	Organisation: ESA/ESTEC
Status: IMPLEMENTED		

Title:	Transistors Field-Effect N-Channel, based on types 2N4391/2N4392 and 2N4393		
Number:	5205/003	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.

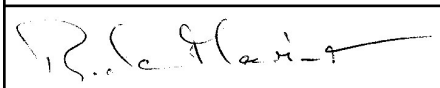
Attachments:

5205003_Issue_3_-_Draft_A.pdf, null

Modifications:

Page 6: original Note 2 to Maximum Ratings, add ", and any handling,"between "testing" and "performed".

Approval signature:



Date signed:

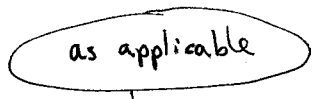
2009-05-06

Pages 1 to 13

TRANSISTORS, FIELD-EFFECT, N-CHANNEL

BASED ON TYPE 2N4391, 2N4392 AND 2N4393

ESCC Detail Specification No. 5205/003



Issue 3 - Draft A	~~May 2008~~

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
38[illegible]	Specification up issued to incorporate editorial and technical changes per DCR.

tbd

when stipulated in Test Methods and Procedures of the ESCC Generic Specification.

At $T_{case} \leq +25°C$

Characteristics	Symbols	Maximum Ratings	Unit	Remarks
Drain-Source Voltage	V_{DS}	40	V	Over entire operating temperature range
Gate-Source Voltage	V_{GS}	-40	V	
Gate-Drain Voltage	V_{GD}	-40	V	
Gate Current	I_G	50	mA	
Power Dissipation	P_{tot} 1	0.3	W	At $T_{amb} \leq +25°C$
	P_{tot} 2	1.8	W	Note 1
Operating Temperature Range	T_{op}	-55 to +175	°C	Note 1
Storage Temperature Range	T_{stg}	-65 to + 200	°C	Note 1
Soldering Temperature	T_{sol}	+235	°C	Note 2

see attached

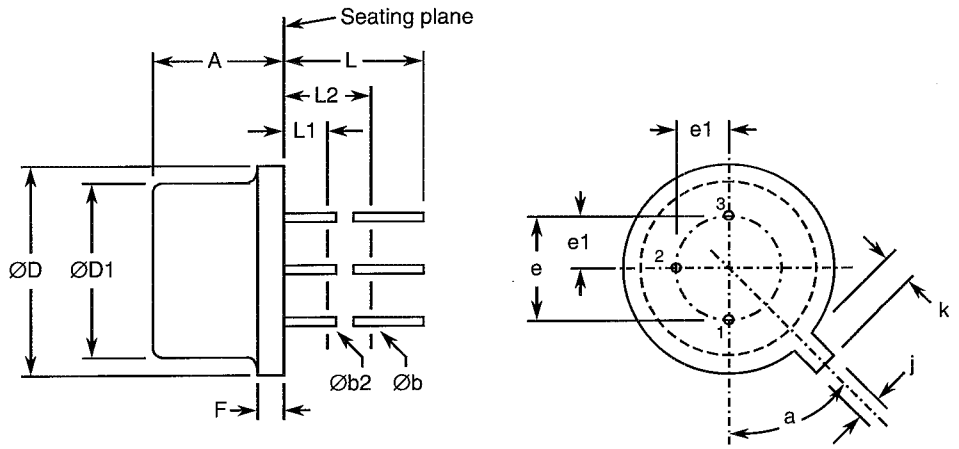
NOTES:

~~1. For $T_{amb} > +25°C$, derate linearly to 0W at +175°C.~~

1. For Variants with tin-lead plating or hot solder dip lead finish all testing performed at $T_{amb} > +125°C$ shall be carried out in a 100% inert atmosphere.
2. 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.

1.6 PHYSICAL DIMENSIONS AND TERMINAL IDENTIFICATION

1.6.1 Metal Can Package (TO-18) - 3 lead



Symbols	Dimensions mm		Notes
	Min	Max	
A	4.32	5.33	
Øb	0.406	0.533	2, 3

Thermal Resistance, Junction-to-Ambient	$R_{th(j-a)}$	500	°C/W	
Thermal Resistance, Junction-to-Case	$R_{th(j-c)}$	83.3	°C/W	