



# DOCUMENT CHANGE REQUEST

DCR number            515            Changes required for: General  
Date: 2009/05/06            Date sent: 2009/05/06  
Status: IMPLEMENTED

Originator: S Jeffery - ESCC  
Organisation: ESA/ESTEC

Title: Transistors Low Power NPN, based on type 2N2857

Number: 5201/014            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:

5201014\_Issue\_3\_-\_Draft\_A.pdf, null

Modifications:

N/A

Approval signature:

Date signed:

2009-05-06



Pages 1 to 12

## TRANSISTORS, LOW POWER, NPN

BASED ON TYPE 2N2857

ESCC Detail Specification No. 5201/014

as applicable

Issue <del>2</del> 3 - Draft A	May <del>2008</del>
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Document Custodian: European Space Agency - see <https://escies.org>



as applicable

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DCR No.	CHANGE DESCRIPTION
<del>384</del>	Specification up issued to incorporate editorial and technical changes per DCR.

tbd

At  $T_{case} \leq +25^{\circ}C$

Characteristics	Symbols	Maximum Ratings	Unit	Remarks
Collector-Base Voltage	$V_{CB0}$	30	V	Over entire operating temperature range
Collector-Emitter Voltage	$V_{CEO}$	15	V	
Emitter-Base Voltage	$V_{EBO}$	2.5	V	
Collector Current	$I_C$	40	mA	Continuous
Power Dissipation	$P_{tot1}$	200	mW	At $T_{amb} \leq +25^{\circ}C$
	$P_{tot2}$	300	mW	Note 1
Operating Temperature Range	$T_{op}$	-55 to +175	$^{\circ}C$	
Storage Temperature Range	$T_{stg}$	-65 to +200	$^{\circ}C$	
Soldering Temperature	$T_{sol}$	+235	$^{\circ}C$	Note 1

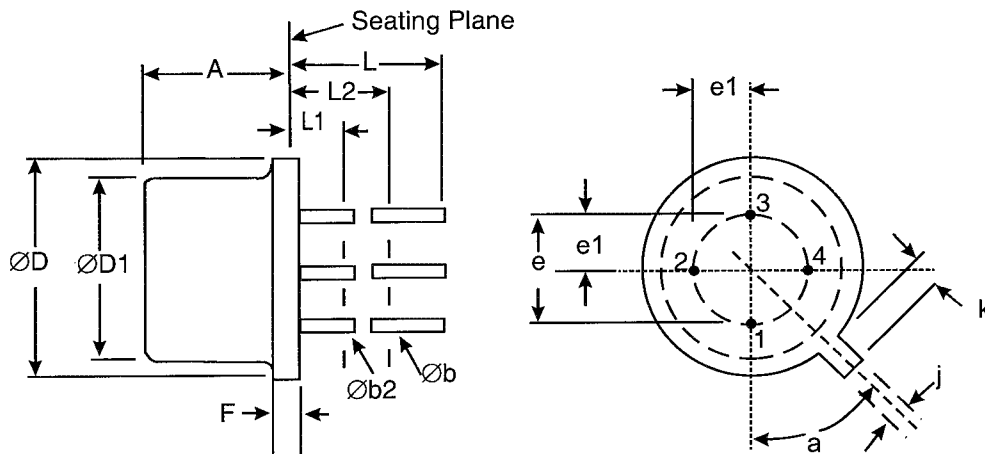
See attached

**NOTES:**

- For  $T_{amb} > +25^{\circ}C$ , derate linearly to 0W at +175 $^{\circ}C$ .
- 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-72) - 4 lead



Symbols	Dimensions mm		Notes
	Min	Max	
A	4.32	5.33	
Øb	0.406	0.533	2, 3
Øb2	0.406	0.483	2, 3
ØD	5.31	5.84	
ØD1	4.52	4.95	
e	2.54 TP		5

Thermal Resistance, Junction-to-Ambient	$R_{th(j-a)}$	750	°C/W	
Thermal Resistance, Junction-to-Case	$R_{th(j-c)}$	500	°C/W	