

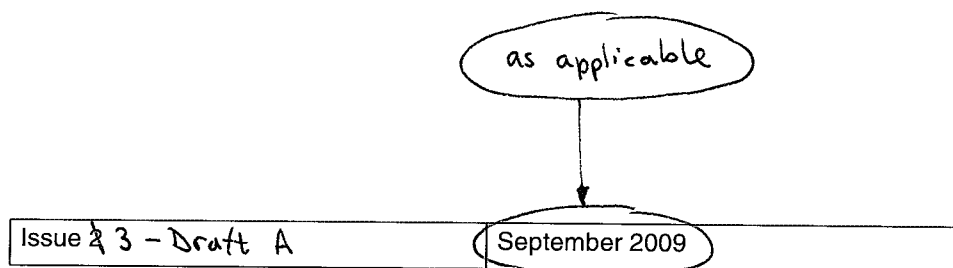


Pages 1 to 14

TRANSISTORS, LOW POWER, PNP

BASED ON TYPE 2N3962

ESCC Detail Specification No. 5202/015



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

as applicable

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DCR No.	CHANGE DESCRIPTION
439-455	Specification up issued to incorporate editorial and technical changes per DCR.

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1.5 MAXIMUM RATINGS

The maximum ratings shall not be exceeded at any time during use or storage.

Maximum ratings shall only be exceeded during testing to the extent specified in this specification and when stipulated in Test Methods and Procedures of the ESCC Generic Specification.

Characteristics	Symbols	Maximum Ratings	Unit	Remarks
Collector-Base Voltage	V_{CB0}	-60	V	Over entire operating temperature range
Collector-Emitter Voltage	V_{CE0}	-60	V	
Emitter-Base Voltage	V_{EB0}	-6	V	
Collector Current	I_C	-200	mA	Continuous
Power Dissipation For TO-18 and CCP For CCP For TO-18	P_{tot1} P_{tot2} P_{tot3}	0.36 0.58 (Note 2) 1.2	W W W	At $T_{amb} \leq +25^\circ C$ Note 1 At $T_{case} \leq +25^\circ C$ Note 1
Operating Temperature Range	T_{op}	-65 to +200	$^\circ C$	Note 3 2
Storage Temperature Range	T_{stg}	-65 to +200	$^\circ C$	Note 3 2
Soldering Temperature For TO-18 For CCP	T_{sol}	+260 +245	$^\circ C$	Note 4 3 Note 5 4

NOTES:

- ~~1. For T_{amb} or $T_{case} > +25^\circ C$, derate linearly to 0W at +200 $^\circ C$.~~
- ~~2. When mounted on an 8 x 10 x 0.6mm ceramic substrate.~~
- 2.3 For Variants with tin-lead plating or hot solder dip lead finish all testing, and any handling, performed at $T_{amb} > +125^\circ C$ shall be carried out in a 100% inert atmosphere.
- 3.4 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.
- 4.5 Duration 5 seconds maximum and the same terminal shall not be resoldered until 3 minutes have elapsed.

Thermal Resistance, Junction-to-Ambient	$R_{th(j-a)}$	486	$^\circ C/W$	
Thermal Resistance, Junction-to-Case	$R_{th(j-c)}$	145.8	$^\circ C/W$	Note 1

[1. Thermal Resistance, Junction-to-Case only applies to TO-18 packaged Variants.

2.8 POWER BURN-IN CONDITIONS

Characteristics	Symbols	Test Conditions	Units
Ambient Temperature	T_{amb}	+20 to +50	$^{\circ}C$
Power Dissipation	P_{tot}	As per Maximum Ratings, P_{tot1} derated at the chosen T_{amb}	W
Collector-Base Voltage	V_{CB}	-40	V

2.9 OPERATING LIFE CONDITIONS

The conditions shall be as specified for Power Burn-in.

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using the specified $R_{th(j-a)}$.