DOCUMENT CHANGE REQUEST

DCR number 1378	Changes required for: General	Originator: Aissa Nehdi
Date: 2020/10/20	Date sent: 2020/09/17	Organisation: STMicroelectronics
Status: IMPLEMENTED		

Title:	Transistors, Low Power, NPN, based on type 2ST15300		
Number:	5201/020	Issue:	1

Other documents affected:

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Paragraph:

2.5 PARAMETER DRIFT VALUES

Original wording:

V(BR)CBO = 300V min

Icbo : limit 1 µA max

Iebo : limit 200nA max

Proposed wording:

V(BR)CBO = 240V min

Icbo : limit 10 µA max

Iebo : limit 50µA max

Justification:

Alignment to device characterization or performance

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Paragraph:

2.4.1 Room Temperature Electrical Measurements

Original wording:

ICEO= 500nA max

ICBO : VCE=240v limit 500nA max

IEBO : VEB =6V limit 100nA max

Cobo
100KHz< F < 1MHz
100 pF Max

Ton / Toff
Ic = 1A, Vcc=6.5V
Vbb=-8V
Ib1=Ib2=100Ma
Ton=0.2µs Max
Toff= 3µs

Proposed wording:

ICEO removed from the table

ICBO : VCE=300v limit 10µA max

IEBO : VEB =6V limit 50µA max

Cobo
F =1MHz
120 pF max

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Ton / Toff
Ic = 3A, Vcc=30V
Ib1=300mA, Ib2=300mA
Ton=0.4µs Max
Toff= 3.5µs

Justification:

Alignment to device characterization or performance

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Paragraph:

1.5 MAXIMUM RATINGS

Original wording:

Ptot1 = 2W
Ptot2= 54W
Rth(j-c) =2.3°C

Proposed wording:

Ptot1 = 2.2W
Ptot2= 40W
Rth(j-c) = 4.38°C

Justification:

Alignment to device characterization or performance

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Paragraph:

1.7 FUNCTIONAL DIAGRAM

Original wording:

PNP diagram

Proposed wording:

NPN diagram

Justification:

Alignment to device characterization or performance

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Paragraph:

2.5 PARAMETER DRIFT VALUES

Original wording:

Icbo : limit 500 nA max

Proposed wording:

Icbo : limit 10 µA max

Justification:

Alignment to device characterization or performance

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Paragraph:

2.4.2 High and Low Temperatures Electrical Measurements

Original wording:

Icbo : Vcb=240v limit 1 µA max

Proposed wording:

Icbo : Vcb=300v 100 µA max

HFE2 removed from the table

Justification:

Alignment to device characterization or performance

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Paragraph:

2.4.1 Room Temperature Electrical Measurements

Original wording:

Values of resistors

Value of Vin= 45V

Proposed wording:

Values of resistors removed

Values of Vin removed

Justification:

Alignment to device characterization or performance

Attachments:

escc5201020iss2_draft_a_in_review.docx, modification_page7_&_10(3).docx

Modifications:

See attached spec mark-up for full change details.

The following change details shall also apply:

Page 9, Para 2.4.1: For Ton & Toff, it is confirmed that VBB = -8V is not changed.

Page 11, Para 2.6: For ICBO, change max limit to be 10µA (was 500nA)

Page 13, Para 2.10.2 (not Para

Approval signature:

Date signed:
2020-10-20