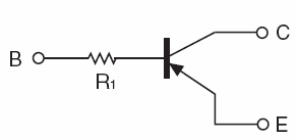
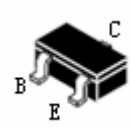
Digital Transistor DTA114TUA

FEATURES

- Epitaxial planar die construction.
- PNP expitaxial planar silicon transistor
- Also available in lead free version.

Lead-free





SOT-323

APPLICATIONS

- The NPN style digital transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
DTA114TUA	94	SOT-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C(Max.)	Collector Current	-100	mA
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air	625	℃/W
T_j,T_{stg}	Operating and Storage and Temperature Range	-55 to +150	℃

Digital Transistor **DTA114TUA**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base breakdown Voltage	BV_{CBO}	I_C=-50μA	-50			V
Collector-Emitter breakdown Voltage	BV_{CEO}	I_C=-1mA	-50			V
Emitter-Base breakdown Voltage	BV_{EBO}	I_E=-50μA	-5			V
Collector cutoff Current	I_{CBO}	V_{CB}=-50V	-	-	-0.5	μA
Emitter cutoff Current	I_{EBO}	V_{EB}=-4V	-	-	-0.5	μA
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B=-10mA/-1mA			-0.3	V
DC Current Gain	h_{FE}	I_C=-1mA,V_{CE}=-5V	100	250	600	
Input Resistor(R_1)	R_1		7	10	13	kΩ
Gain-Bandwidth Product	f_T	V_{CE}=-10V,I_E=5mA, f=100MHz	-	250	-	MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

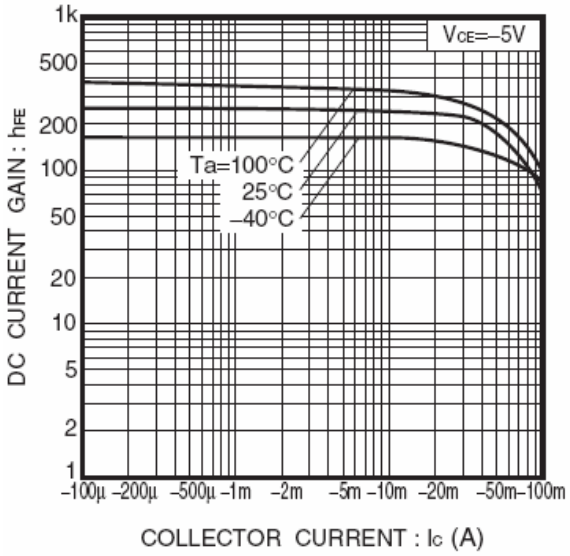


Fig.1 DC current gain vs. collector current

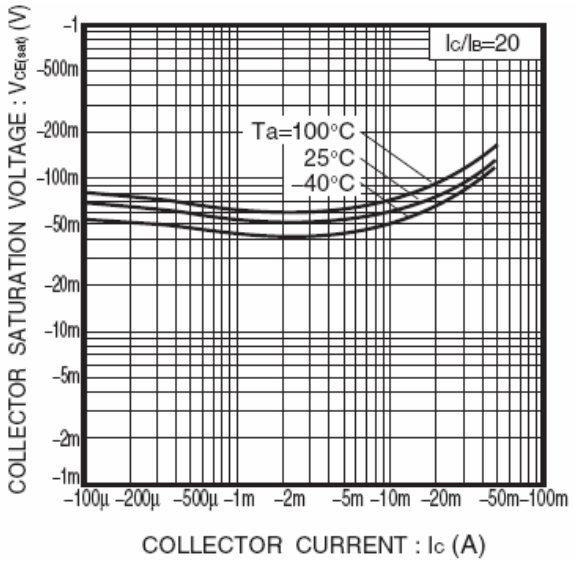


Fig.2 Collector-emitter saturation voltage vs. collector current

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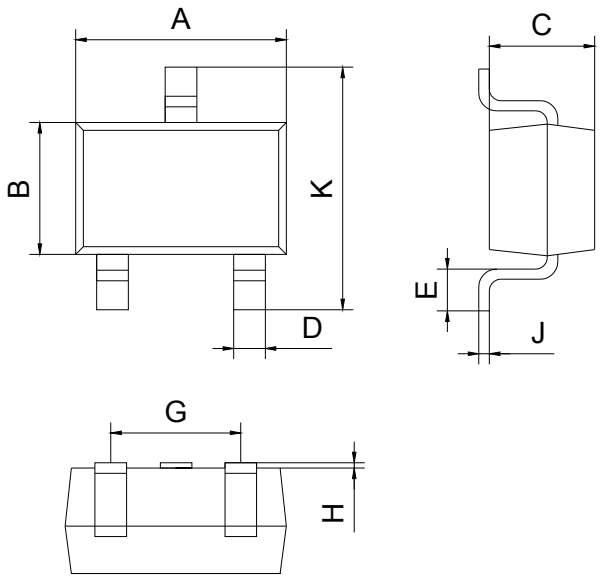
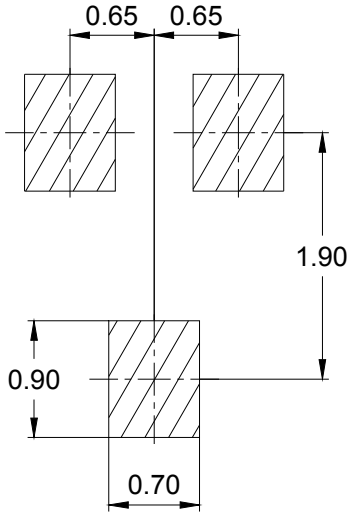
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.95 Typical	
D	0.30 Typical	
E	0.25	0.40
G	1.2	1.4
H	0.02	0.10
J	0.10 Typical	
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
DTA114TUA	SOT-323	3000/Tape&Reel