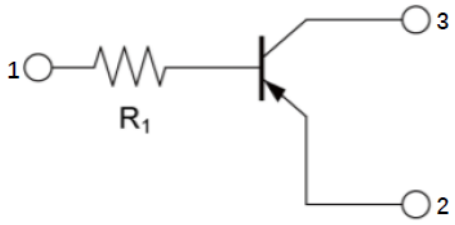
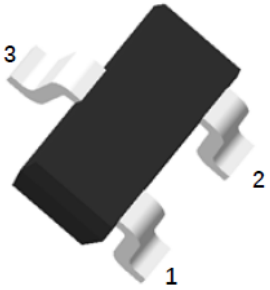
PNP Digital Transistors (Built-in Resistors)





1: Base
2: Emitter
3: Collector

Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for auto matic insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

- **Package**: SOT-523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25℃ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				94
Collector-base voltage	V_{CBO}	V	I_C=-50μA,I_E=0	-50
Collector-emitter voltage	V_{CEO}	V	I_C =-1mA,I_B=0	-50
Emitter-base voltage	V_{EBO}	V	I_E=-50μA,I_C=0	-5
Collector current	I_C	mA		-100
Power dissipation	P_D	mW		150
Operation junction temperature	T_J	℃		-55 to +150
Storage temperature	T_{STG}	℃		-55 to +150

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	I_C=-50μA,I_E=0	-50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	I_C =-1mA,I_B=0	-50		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	I_E=-50μA,I_C=0	-5		
Collector-base cut-off current	I_{CBO}	uA	V_{CB}=-50V			-0.5
Emitter-base cut-off current	I_{EBO}	uA	V_{EB}=-4V	-		-0.5
DC current gain	h_{FE}		V_{CE}=-5V,I_C=-1mA	100		600
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	I_C=-10mA,I_B=-1mA			-0.3
Input resistance	R_1	kΩ		7	10	13
Transition frequency	f_T	MHz	V_{CE}=-10V, I_C=-5mA		250	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	833
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	666

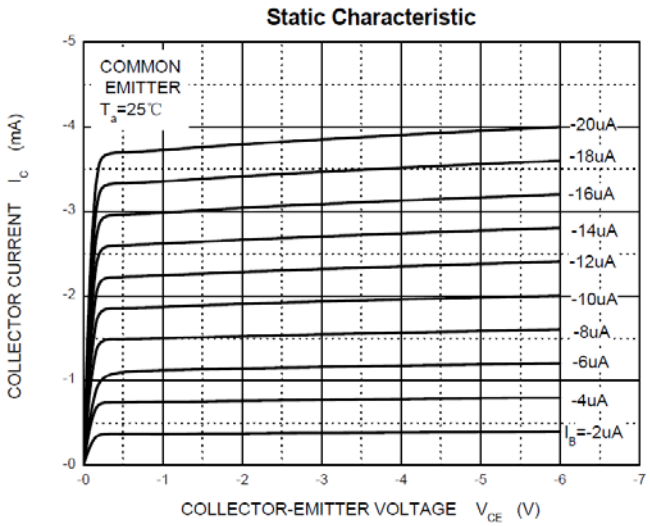
Note:

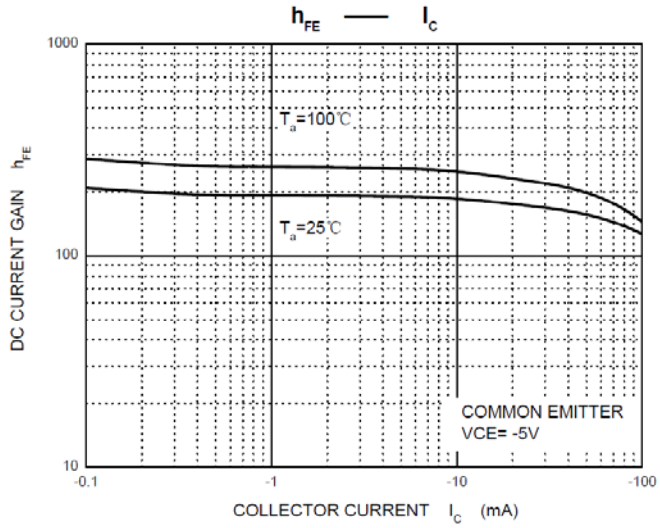
（1）Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas

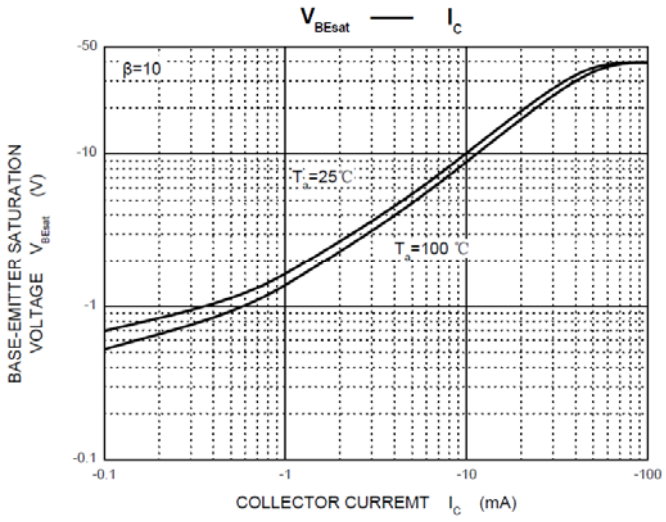
■ Ordering Information

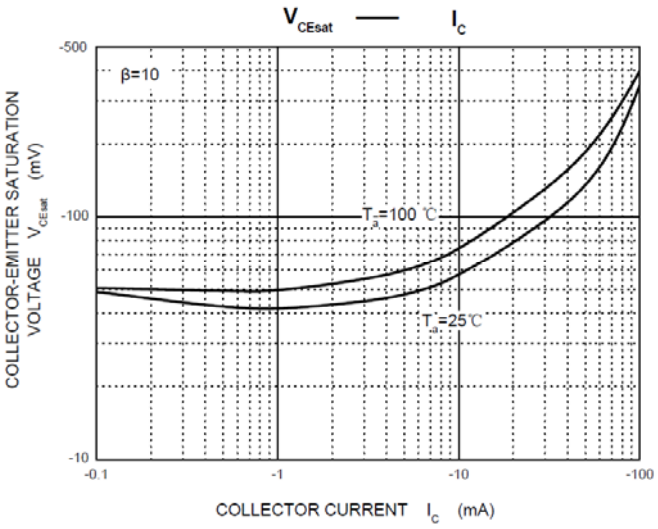
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DTA114TE	F2	Approximate 0.0027	3000	30000	120000	7” reel

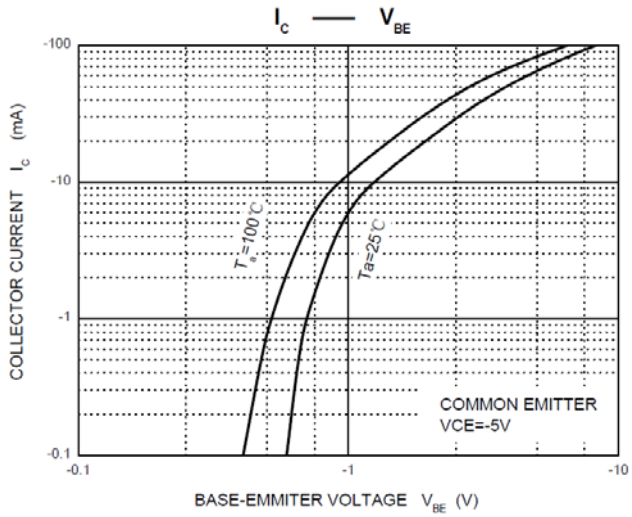
■ Characteristics

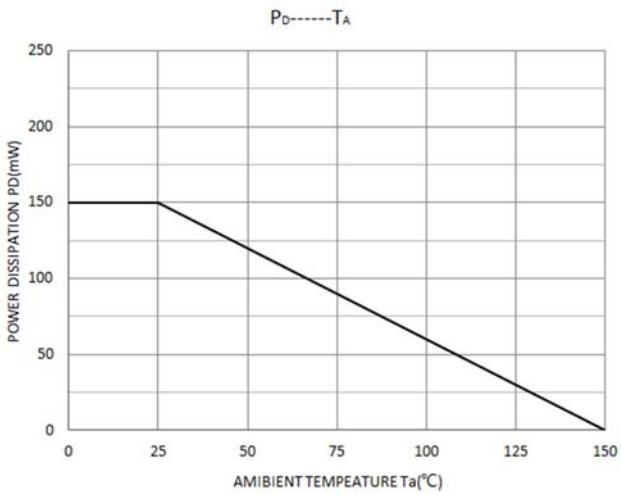




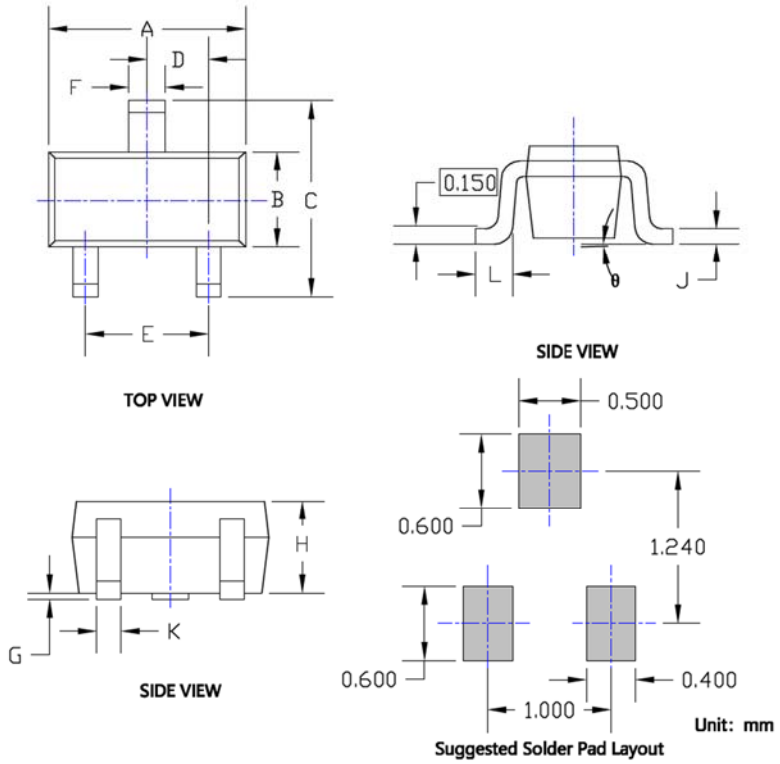








■ Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.059	0.067	1.500	1.700
B	0.030	0.033	0.750	0.850
C	0.057	0.069	1.450	1.750
D	0.020TYP		0.500TYP	
E	0.035	0.043	0.900	1.100
F	0.010	0.018	0.250	0.450
G	0.000	0.004	0.000	0.100
H	0.024	0.031	0.600	0.800
J	0.004	0.008	0.100	0.200
K	0.006	0.014	0.150	0.350
L	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

NOTE:
1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.All dimensions shown are exclusive of burrs and gate residues. Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
5.Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
6.Dimensions A and B are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[A和B是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
7.Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]
8. ★It is the key size.
[★ 标记为关键尺寸]

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