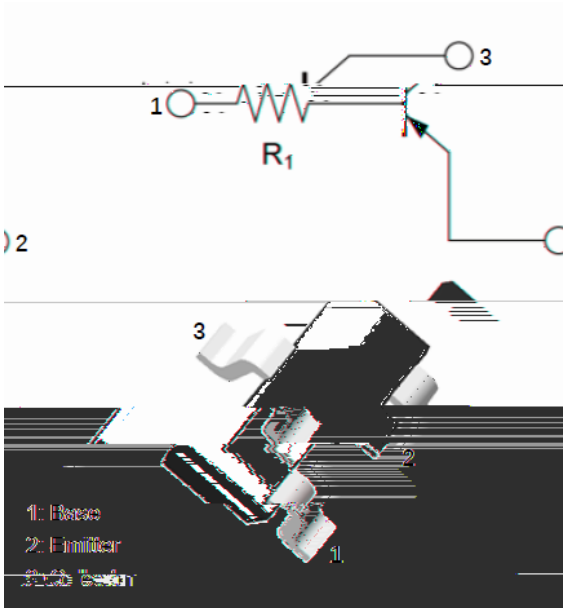
PNP Digital Transistors (Built-in Resistors)



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 (T_a=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	$R_{\theta J\text{-}A}$(1)	/W	833
Thermal resistance, junction-to-case	$R_{\theta J\text{-}C}$(1)	/W	666

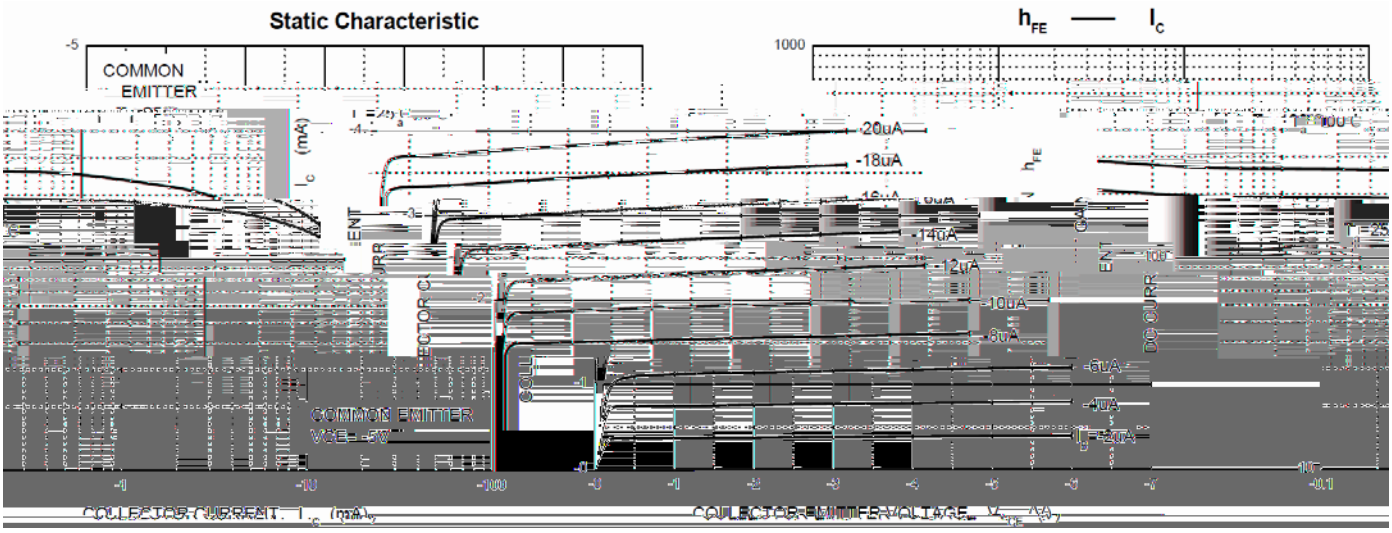
Note:

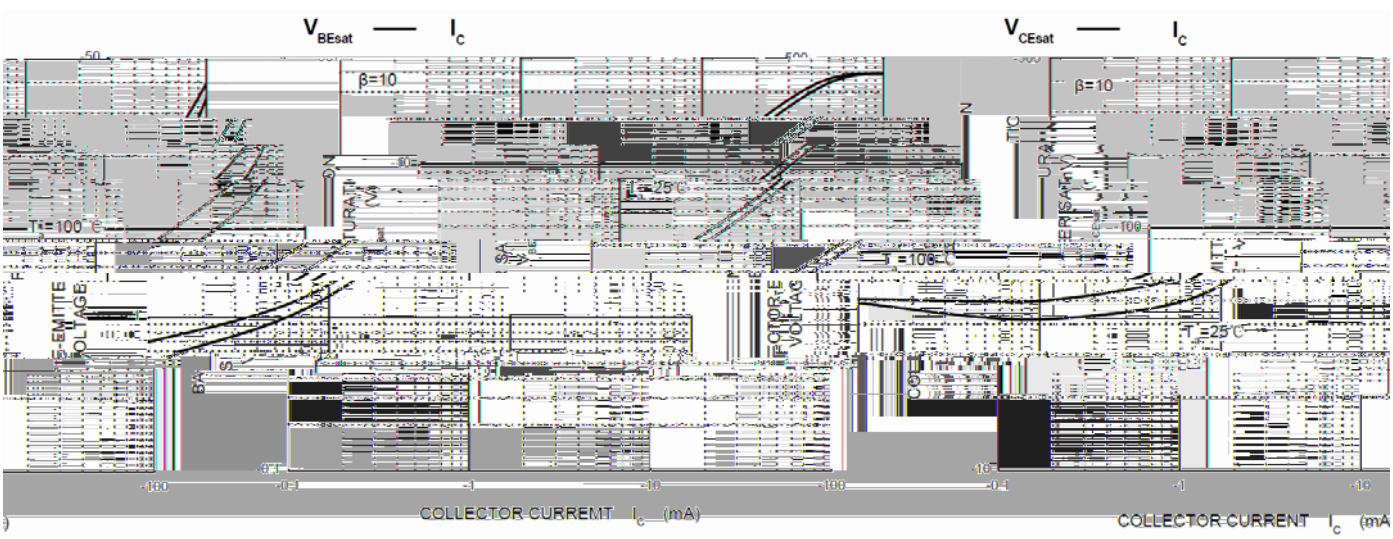
1 Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas

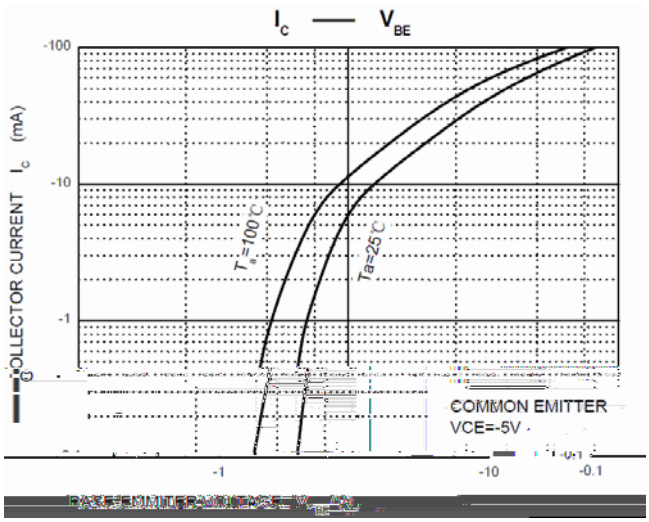
■ Ordering Information

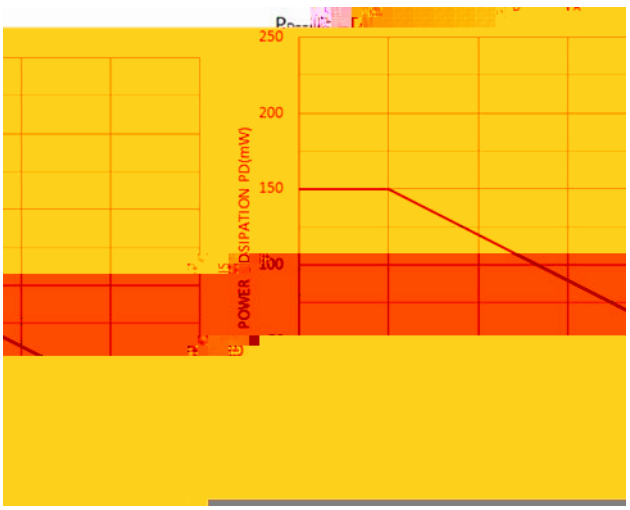
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DTA114TE	F2	Approximate 0.0027	3000	30000	120000	7” reel

■ Characteristics









■ Outline Dimensions

Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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