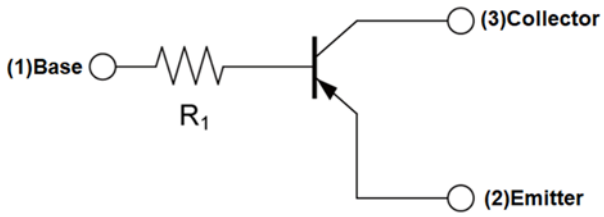
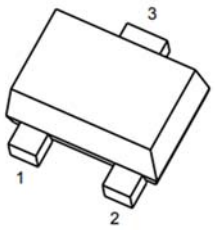
DTA143TM

PNP Digital Transistors (Built-in Resistors)





SOT-723

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-723
- **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				93
Collector-Base Voltage	V_{CBO}	V		-50
Collector-Emitter Voltage	V_{CEO}	V		-50
Emitter-Base Voltage	V_{EBO}	V		-5
Output current	I_O	mA		-100
Power dissipation	P_D	mW		100
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	Ic=-50μA, I_E=0	-50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	Ic=-1mA, I_B=0	-50		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	I_E=-50μA, I_C=0	-5		
Collector cut-off current	I_{CBO}	uA	V_{CB}=-50V, I_E=0			-0.5
Emitter cut-off current	I_{EBO}	uA	V_{EB}=-4V, I_C=0			-0.5
Collector-emitter saturation voltage	V_{CESAT}	V	I_C=-5mA, I_B=-0.25mA			-0.3
DC current gain	h_{FE}		V_{CE}=-5V, I_C=-1mA	100		600
Input resistance	R_1	kΩ		3.29	4.7	6.11
Transition frequency	f_T	MHz	V_O=-10V,I_O=-5mA,f=100MHz		250	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	1250
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	1000

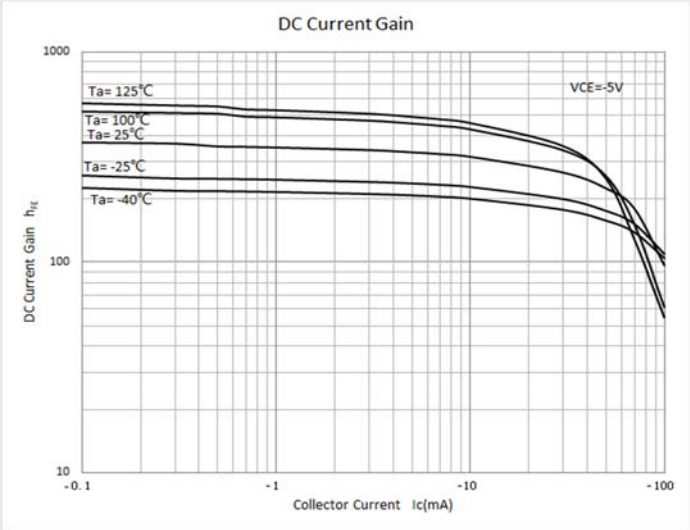
Note:

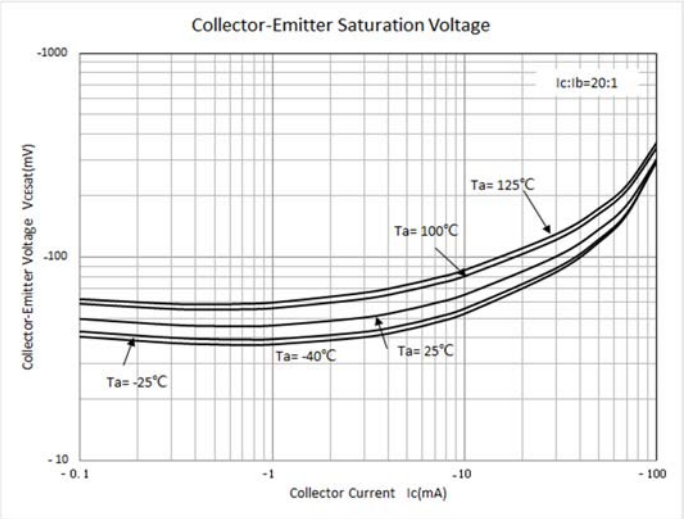
（1）Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas

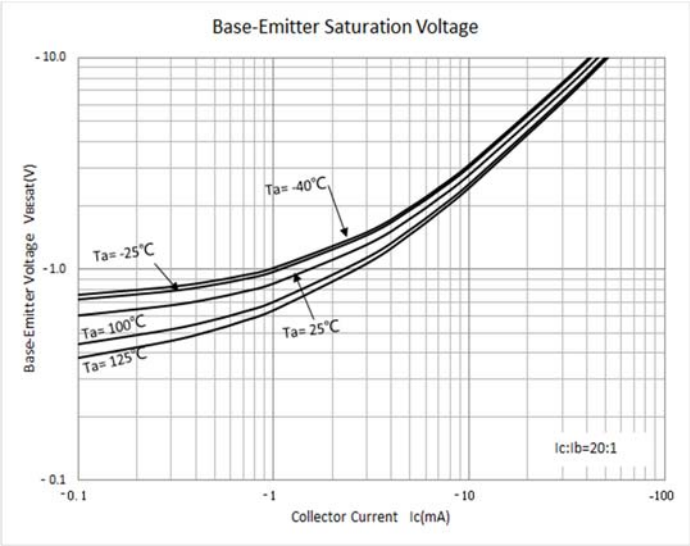
■Ordering Information

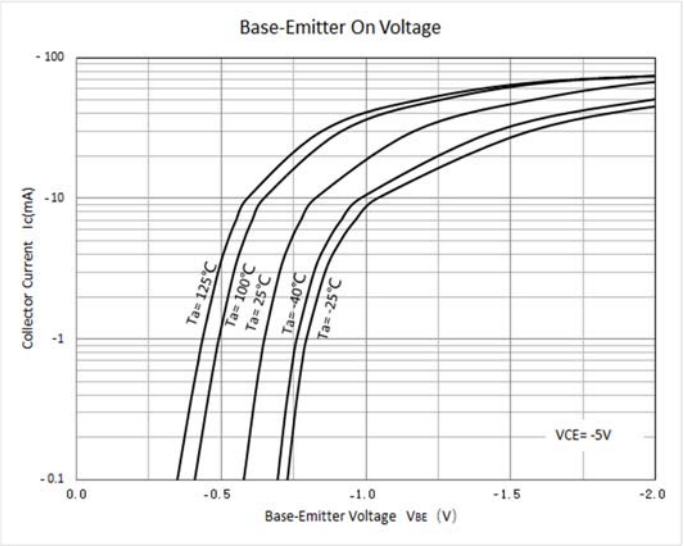
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DTA143TM	F2	Approximate 0.0013	8000	80000	320000	7” reel

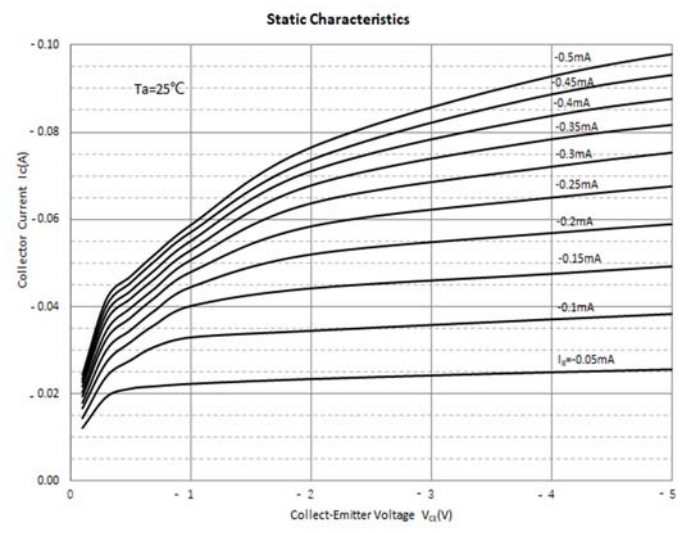
■**Characteristics**(Typical)

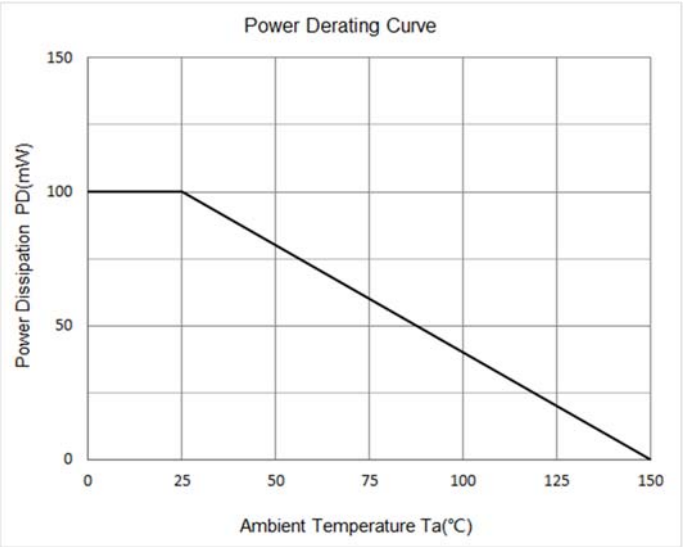




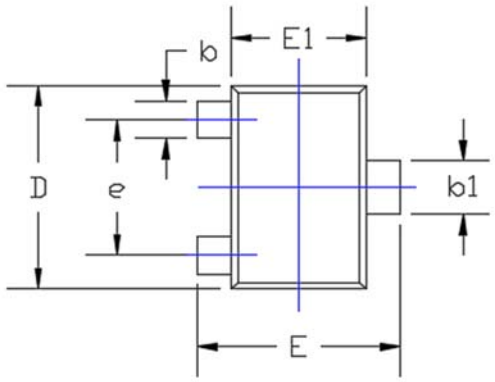




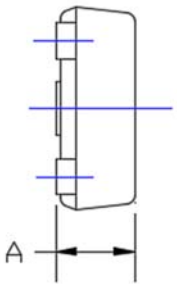




■ Outline Dimensions

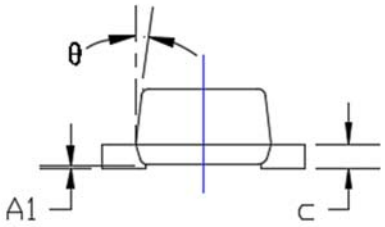


TOP VIEW



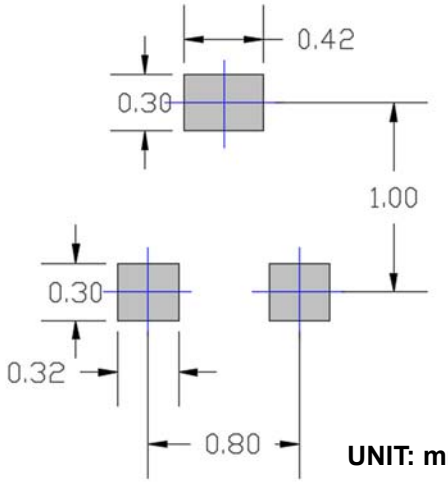
SIDE VIEW

DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.017	0.022	0.430	0.550
A1	0.000	0.002	0.000	0.050
b	0.007	0.011	0.170	0.270
b1	0.011	0.015	0.270	0.370
c	0.003	0.008	0.080	0.200
D	0.045	0.049	1.150	1.250
E	0.045	0.049	1.150	1.250
E1	0.030	0.033	0.750	0.850
e	0.031TYP.		0.800TYP.	
θ	7°REF.		7°REF.	



SIDE VIEW

■ Suggested Pad Layout



UNIT: mm

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function, or design or otherwise.

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.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.