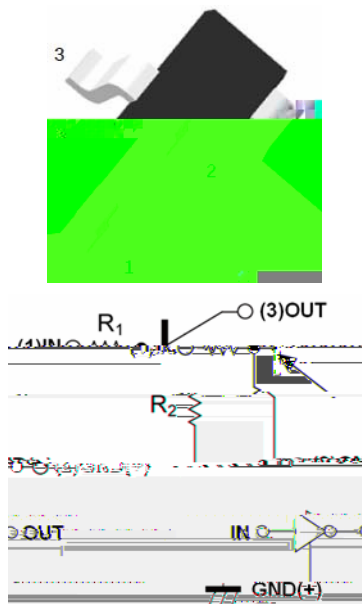




DTA114YE

PNP Digital Transistors (Built-in Resistors)



Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic Insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

Package SOT-523

Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				54
Supply voltage	V_{CC}	V		-50
Input voltage	V_{IN}	V		-40 to +6
Output current	I_O	mA		-100
Power dissipation	P_D	mW		150
Operation junction temperature	T_J			-55 to +150
Storage temperature	T_{STG}			-55 to +150



DTA114YE

Electrical Characteristics (T_a=25 Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Input voltage	V _{I(off)}	V	V _{CC} =-5V, I _O =-100uA	-0.3		
Collector-emitter breakdown voltage	V _{I(on)}	V	V _O =-0.3V, I _O =-1mA			-1.4
Output voltage	V _{O(on)}	V	I _O /I _i =-5mA/-0.25 mA			-0.3
Input current	I _I	mA	V _I =-5V			-0.88
Output current	I _{O(off)}	uA	V _{CC} =-50V, V _i =0			-0.5
DC current gain	G _I		V _O =-5V, I _O =-5mA	68		
Input resistance	R _I	kΩ		7	10	13
Resistance ratio	R ₂ /R ₁			3.7	4.7	5.7
Transition frequency	f _T	MHz	V _O =-10V, I _O =-5mA		250	

Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{dJ-A} ⁽¹⁾	/W	833
Thermal resistance, junction-to-case	R _{dJ-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
DTA114YE	F2	Approximate 0.0027	3000	30000	120000	7" reel

0"
'7\$ <(

0³

v&KDUDFWHULVWLFV

a³?³

)LJo# 2 1 & K D U D F W H U L V W L F V o#2)) &KDUDFWHULVWLFV

o#9

0

3

) L Jo#9₂ 2₁p Âr , 9

0³ 6 6
5HY

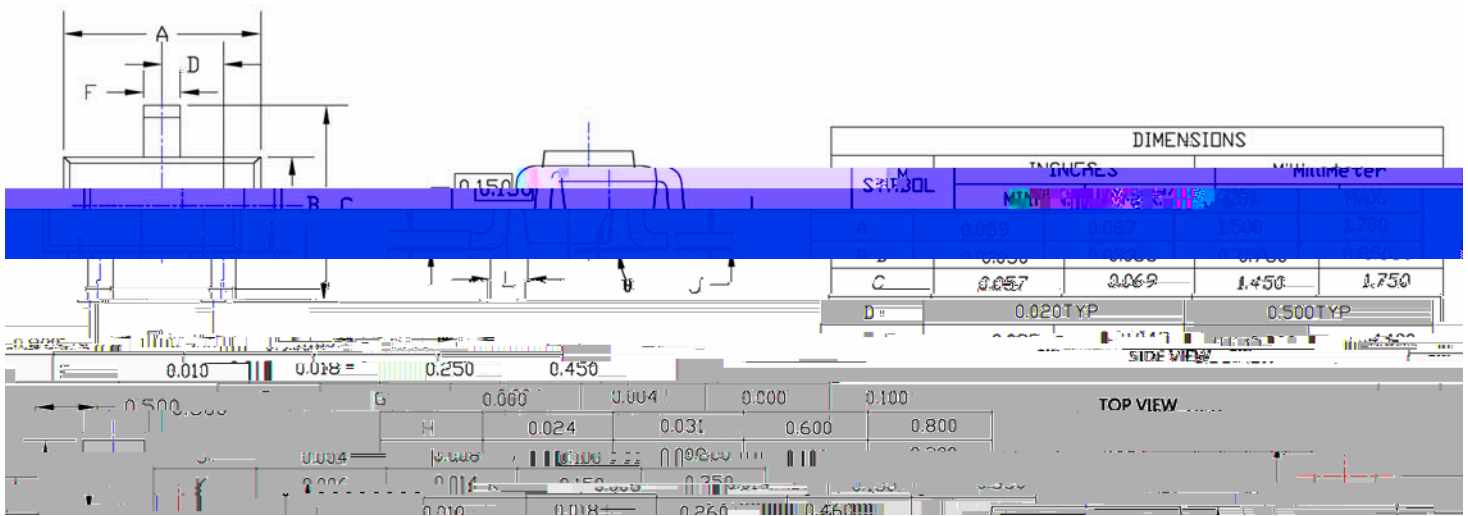
-DQ

<DQJ]KRX <DQJMEH7H0KQW0RQL&ZZZ/WGDQJMLH FRP



DTA114YE

Outline Dimensions





DTA114YE

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 which 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](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.