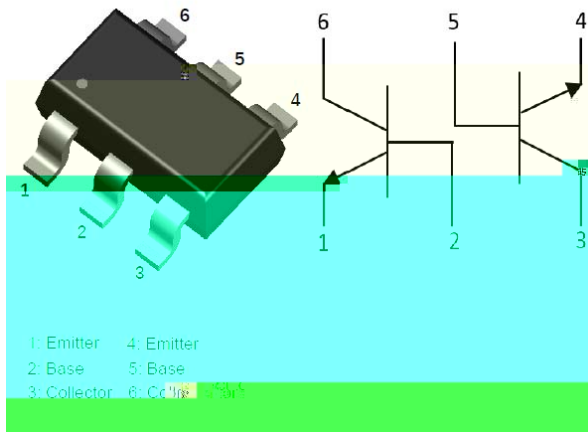


NPN+NPN Transistor



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-23-6L

Terminals Tin plated leads, solderable per J-STD-002 and JESD22-B102

Maximum Ratings (Ta=25 Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				N3
Collector-base voltage	V_{CBO}	V	$I_C=50\mu A, I_E=0$	50
Collector-emitter voltage	V_{CEO}	V	$I_C=1mA, I_B=0$	45
Emitter-base voltage	V_{EBO}	V	$I_E=50\mu A, I_C=0$	5
Collector current	I_C	mA		500
Power dissipation	P_D	mW		300
Operation junction temperature	T_j			-55 to +150
Storage temperature	T_{STG}			-55 to +150



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Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C = 50 \mu A, I_E = 0$ = t 7 7 5	50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C = 10 \mu A, I_B = 0$	45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E = 50 \mu A, I_C = 0$ = t 7 7 5	5		
Collector-base cut-off current	I_{CBO}	nA	$V_{CB} = 20V, I_E = 0$			100
Emitter-base cut-off current	I_{EBO}	nA	$V_{EB} = 5V, I_C = 0$			100
DC current gain	h_{FE1}		$I_C = 1 \text{ mA}$ (CCA)			

Characteristics

Fig 1 Static Characteristics

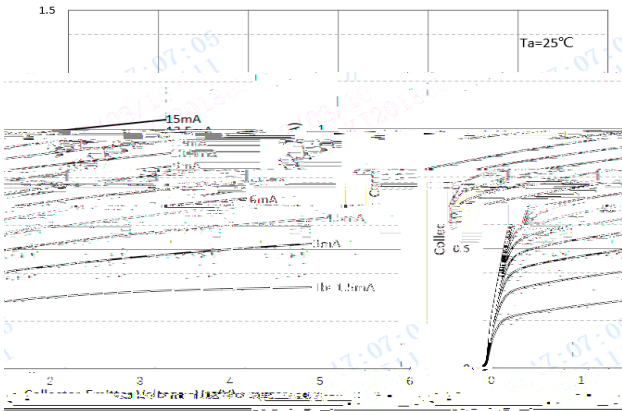


Fig 2 DC Current Gain

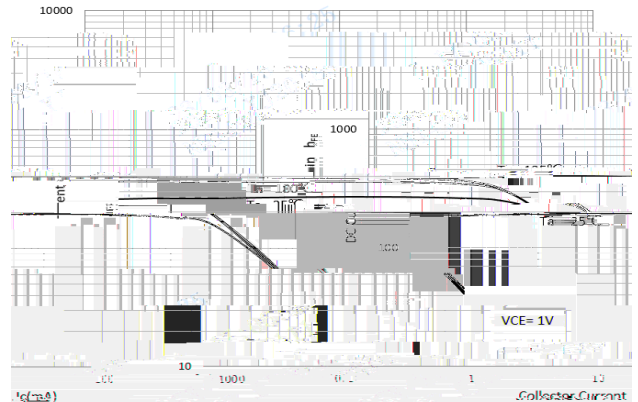


Fig 3 Collector-Emitter Saturation Voltage

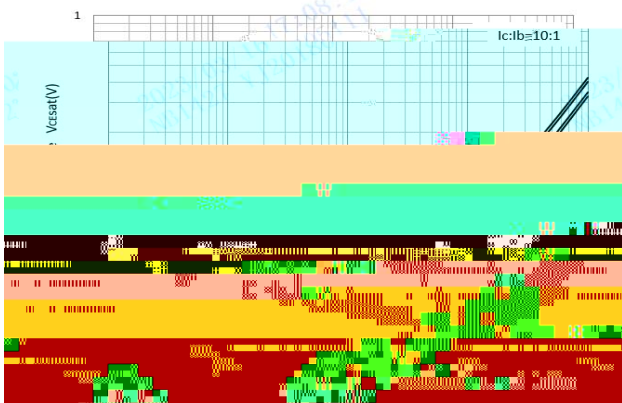


Fig 4 Base-Emitter Saturation Voltage

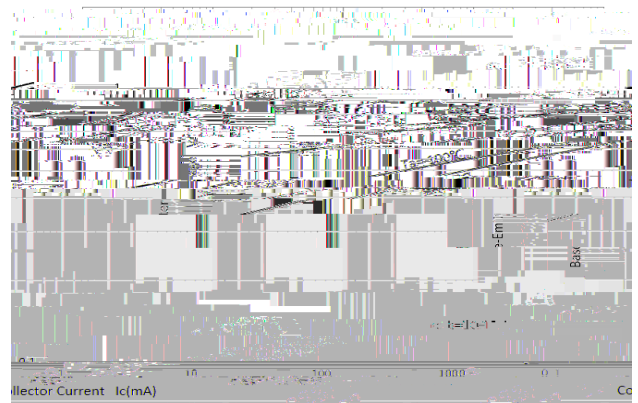


Fig 5 Base-Emitter On Voltage

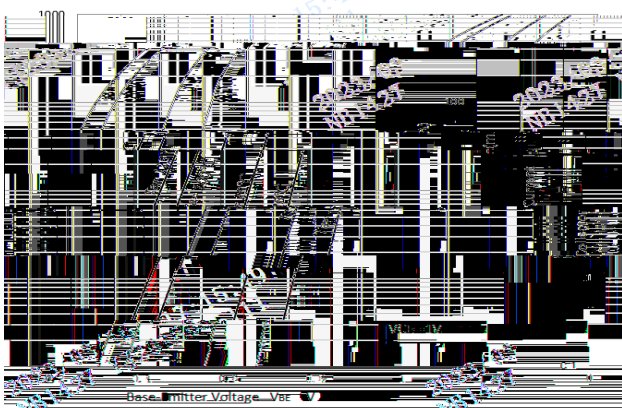


Fig 6 $C_{ob}/C_{ib}-V_{CB}/V_{EB}$

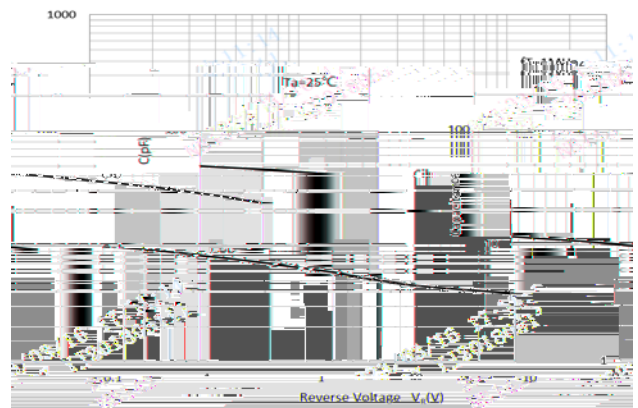
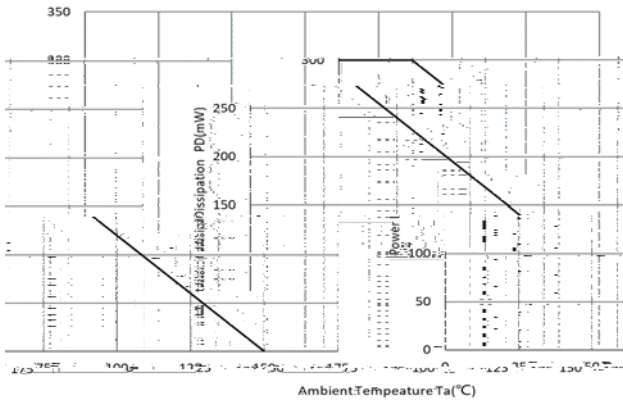




Fig 7 P_D-T_a Curve





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Preferred P/N	Packing
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