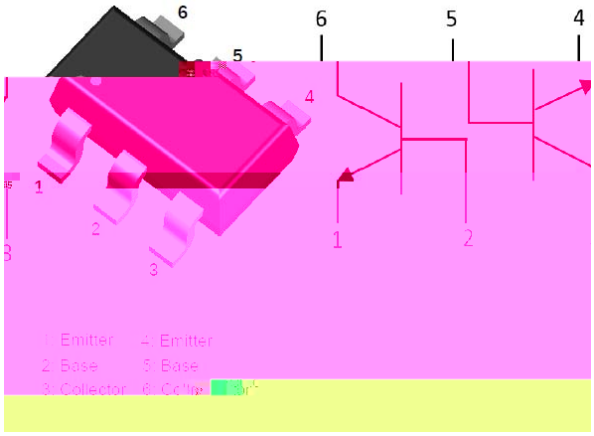
NPN+NPN Transistor



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=50uA, 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=50uA, 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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	I_C=10uA, I_E=0	50		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	I_C=1mA, I_B=0	45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	I_E=10uA, I_C=0	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			

■Characteristics

Fig 1 Static Characteristics

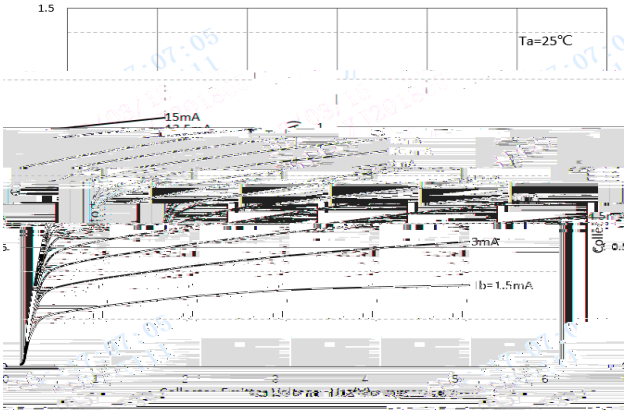


Fig 2 DC Current Gain

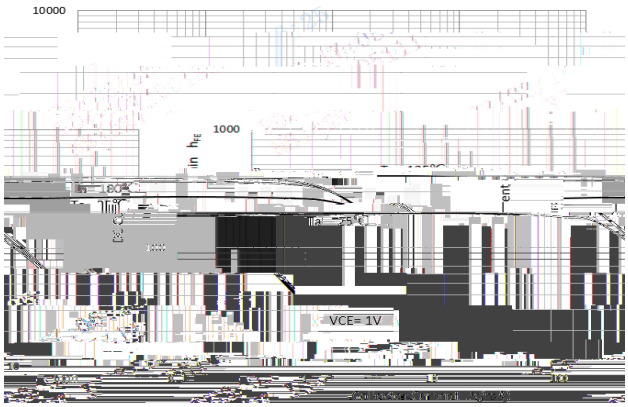


Fig 3 Collector-Emitter Saturation Voltage

Fig 4 Base-Emitter Saturation Voltage

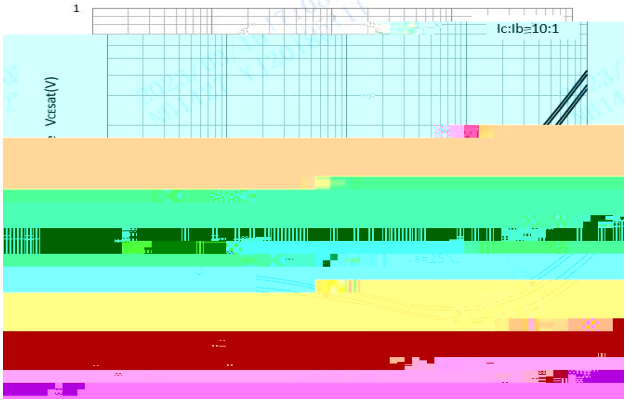


Fig 5 Base-Emitter On Voltage

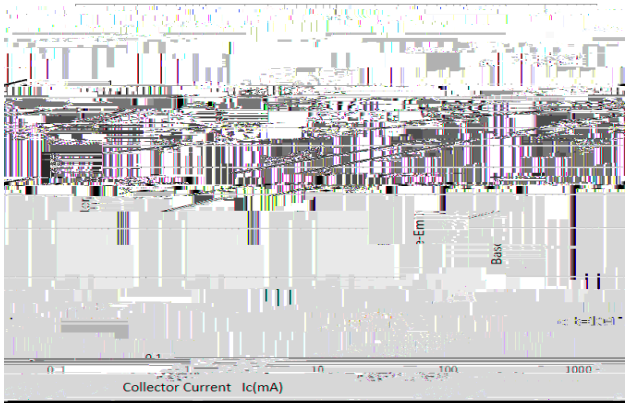
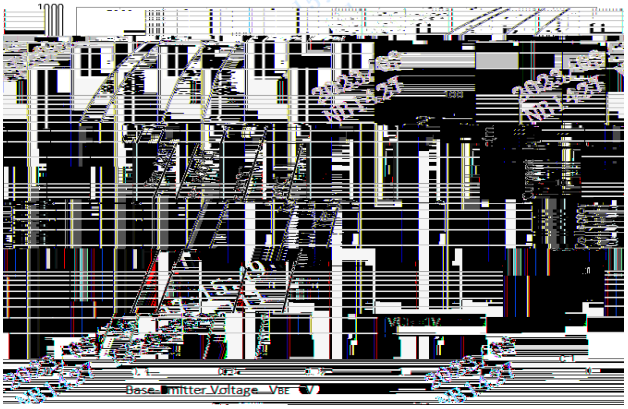


Fig 6 Cob/Cib-V_{CB}/V_{EB}



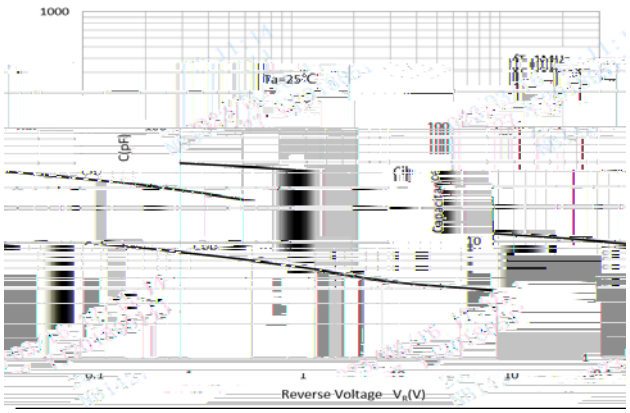
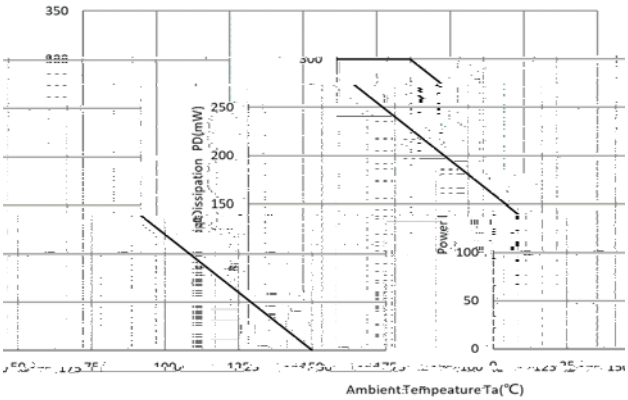


Fig 7 P_D-Ta Curve



Prefered P/N	Packing Co