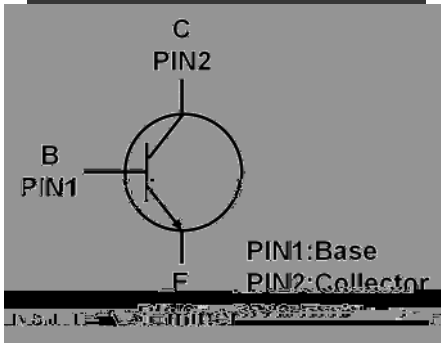
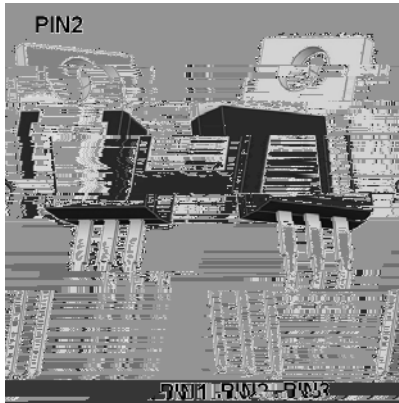


NPN Transistor



Features

Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

Complement to TIP127L
High DC Current Gain

Mechanical Data

Package: TO-220AB
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
Unit Weight: 1.9g

Maximum Ratings (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Value
Device marking code			TIP122L
Collector-base voltage	V_{CBO}	V	100
Collector-emitter voltage	V_{CEO}	V	100
Emitter-base voltage	V_{EBO}	V	5
Collector current	I_C	A	5
Power dissipation (*)	P_D	W	2
Thermal resistance, junction-to-ambient (*)	R_{thJA}	/W	35
Junction temperature	T_j		-55 to +150
Storage temperature	T_{STG}		-55 to +150

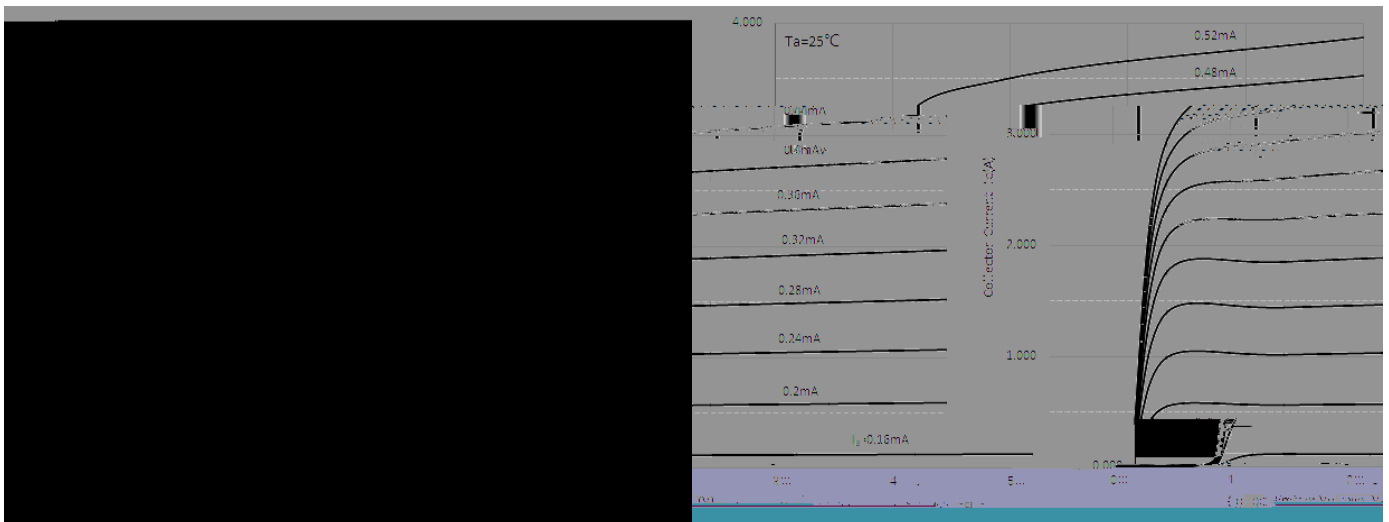
(*) Device mounted on PCB with minimum recommended pad layout and additional heat sink (25mm x 23mm x 15mm) attached.



Electrical Characteristics (Ta=25 unless otherwise noted)

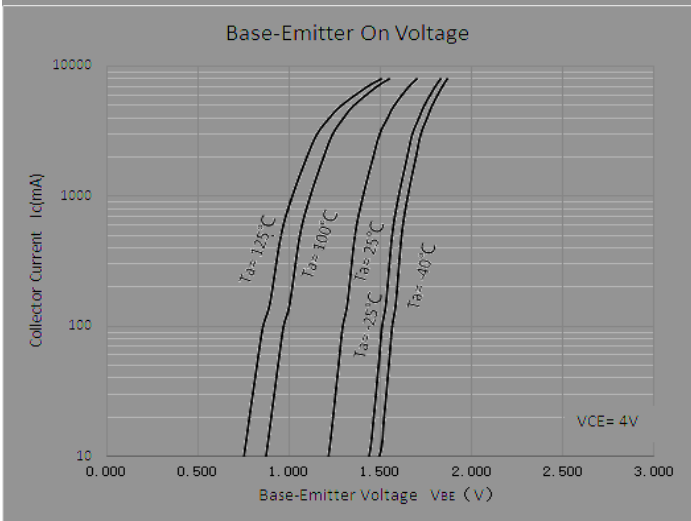
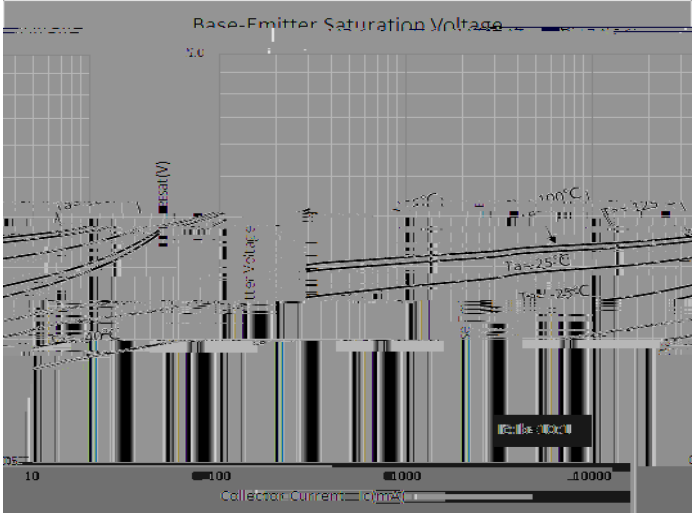
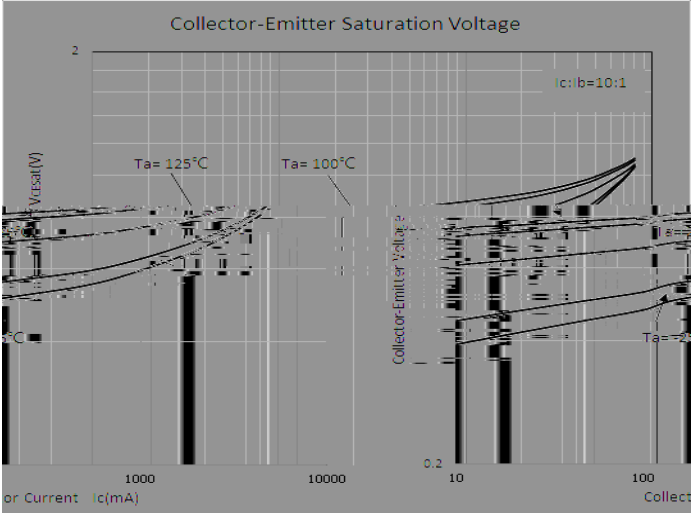
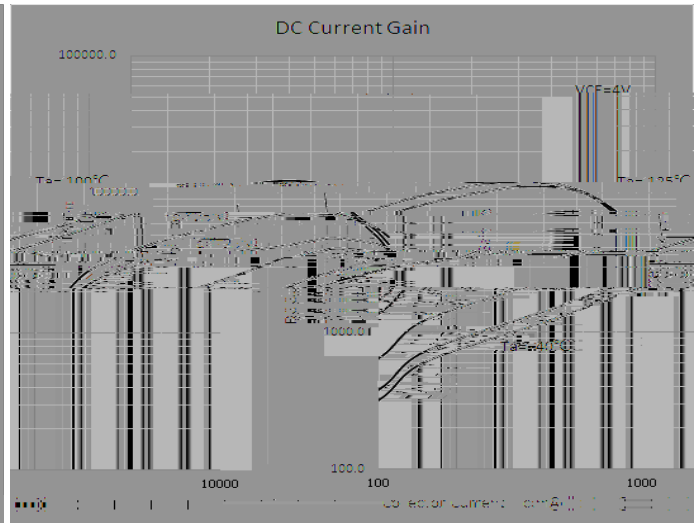
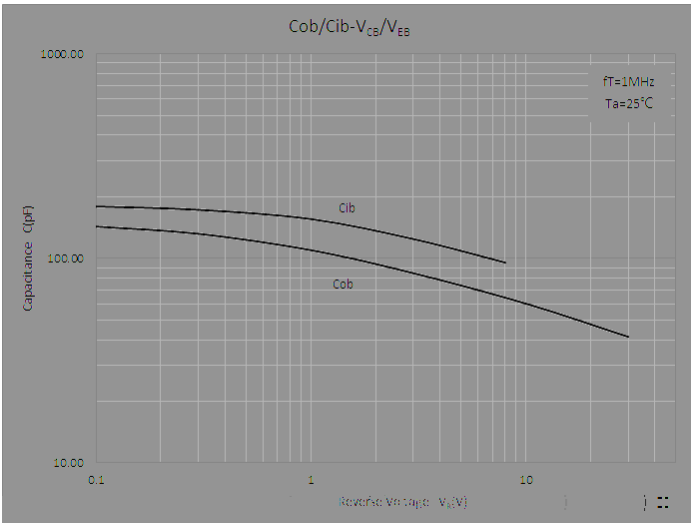
Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=1\text{mA}, I_E=0$	100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=30\text{mA}, I_B=0$	100		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=2\text{mA}, I_C=0$	5		
Collector-base cut-off current	I_{CBO}	mA	$V_{CB}=100\text{V}$			0.2
Collector cutoff current	I_{CEO}	mA	$V_{CE}=50\text{V}$			0.5
Emitter-base cut-off current	I_{EBO}	mA	$V_{EB}=5\text{V}$			2
DC current gain	h_{FE}		$V_{CE}=3\text{V}, I_C=0.5\text{A}$	1000		
			$V_{CE}=3\text{V}, I_C=3\text{A}$	1000		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=3\text{A}, I_B=12\text{mA}$			2.0
			$I_C=5\text{A}, I_B=20\text{mA}$			4.0
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=3\text{A}, I_B=12\text{mA}$			3.0
			$I_C=5\text{A}, I_B=20\text{mA}$			4.0
Base-Emitter Voltage	V_{BE}	V	$V_{CE}=3\text{V}, I_C=3\text{A}$			2.5
Collector-base output capacitance	C_{ob}	pF	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$		60	

Characteristics(Typical)





Characteristics(Typical)



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