

**NPN Plastic-Encapsulate Transistors**

**Description**

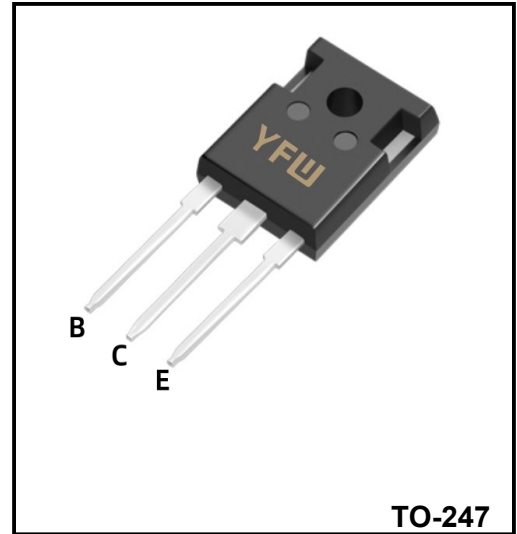
◆The devices are manufactured in epitaxial-base planar technology and are suitable for audio, power linear and switching applications.

**Applications**

- ◆General purpose
- ◆Audio Amplifier

**Features**

- ◆Low collector-emitter saturation voltage
- ◆Complementary to TIP2955



**Absolute Maximum Rating (T<sub>c</sub>=25°C)**

Parameter	Symbol	Value	Unit
Collector-base voltage	BV <sub>CB0</sub>	100	V
Collector-emitter voltage	BV <sub>CEO</sub>	60	V
Emitter-base voltage	BV <sub>EBO</sub>	7	V
Collector current	I <sub>C</sub>	15	A
Base current	I <sub>B</sub>	7	A
Power dissipation	P <sub>D</sub>	90	W
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-40~150	°C
Thermal resistance junction to case	R <sub>θJC</sub>	1.55	°C/W

**Electrical Characteristics (T<sub>c</sub>=25°C)**

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV <sub>CB0</sub>	I <sub>C</sub> = 1mA, I <sub>E</sub> = 0	100			V
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	60			V
Emitter-base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> = 1mA, I <sub>C</sub> = 0	7			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 100V, I <sub>E</sub> = 0			1	mA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 7V, I <sub>C</sub> = 0			5	mA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 4V, I <sub>C</sub> = 4A V <sub>CE</sub> = 4V, I <sub>C</sub> = 10A	20 5		70	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 4A, I <sub>B</sub> = 0.4A			1.0	V
Base-emitter on voltage	V <sub>BE</sub>	V <sub>CE</sub> = 4V, I <sub>C</sub> = 4A			1.8	V

Typical Characteristics

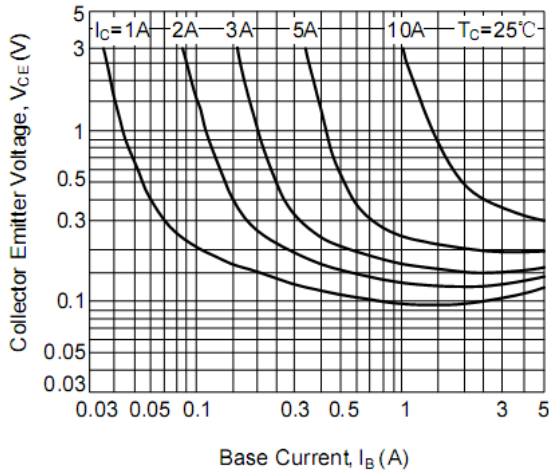


Figure 1. Collector Output Characteristics

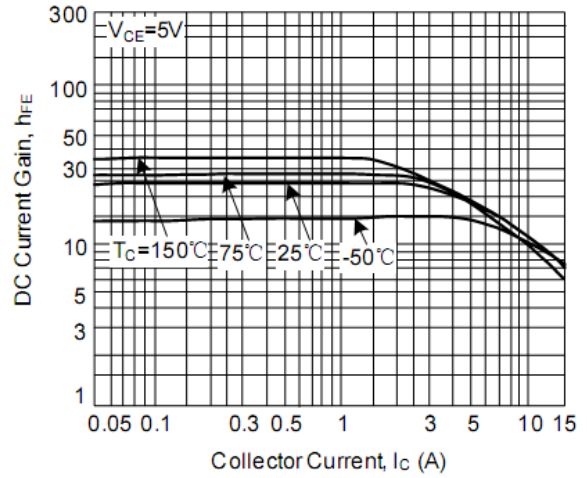


Figure 2. DC current Gain

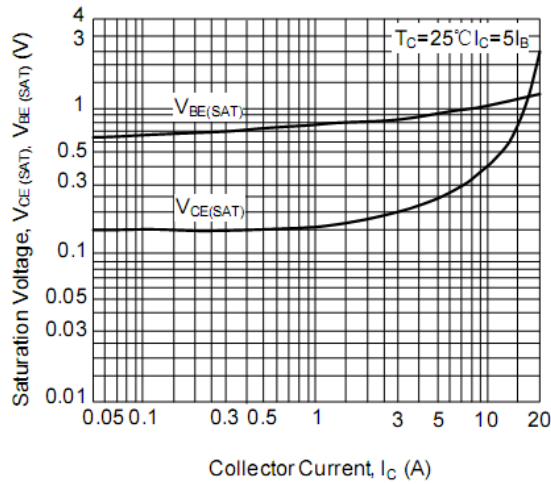


Figure 3. Base and Collector Saturation Voltage

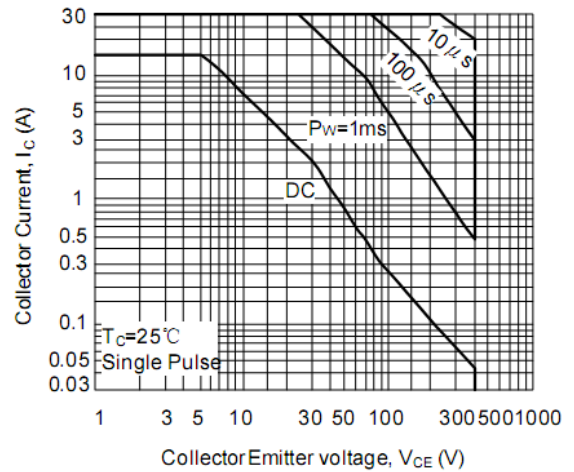


Figure 4. Safe Operating Area

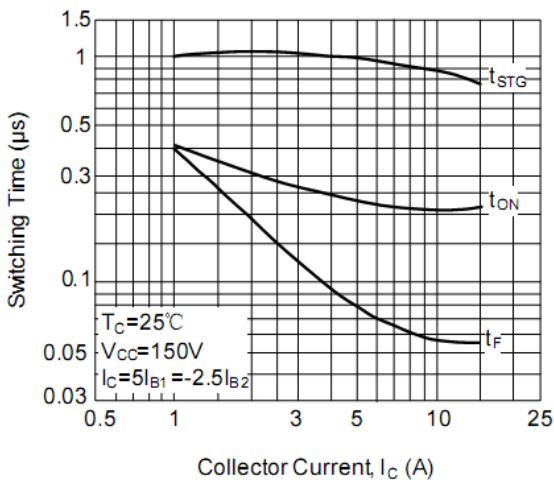
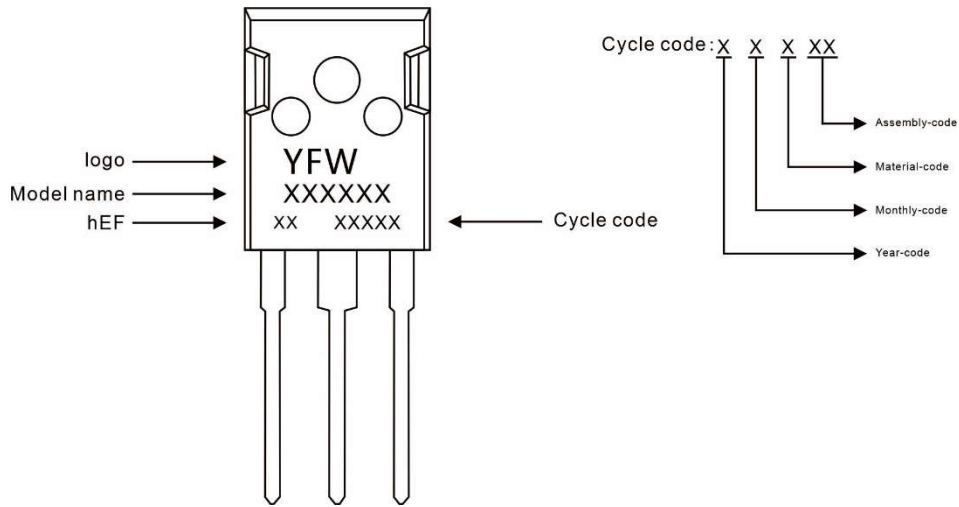


Figure 5. Switching Time

**Marking Diagram**



**Ordering information**

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
TIP3055	TO-247	0.209oz(5.93g)	30pcs/tube	600PCS/Box 2400PCS/Carton

**Package Dimensions**

**TO-247**

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.29	2.54	0.090	0.100
b	1.00	1.40	0.039	0.055
b1	2.00	2.20	0.079	0.087
b2	3.00	3.20	0.118	0.126
c	0.50	0.70	0.020	0.028
D	15.75	16.05	0.620	0.632
E	20.20	20.80	0.795	0.819
e	5.45 (BSC)		0.215 (BSC)	
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
F1	5.80	6.00	0.228	0.236
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.70	0.138	0.146

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