JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD

TO-92 Plastic-Encapsulate Transistors

A44 TRANSISTOR（NPN）

TO—92

1.EMITTER

2.BASE

3. COLLECTOR

1 2 3

FEATURES

Power dissipation

P_{CM} : 0.625 W （Tamb=25℃）

Collector current

I_{CM} : 0.2 A

Collector-base voltage

$V_{(BR)CBO}$: 400 V

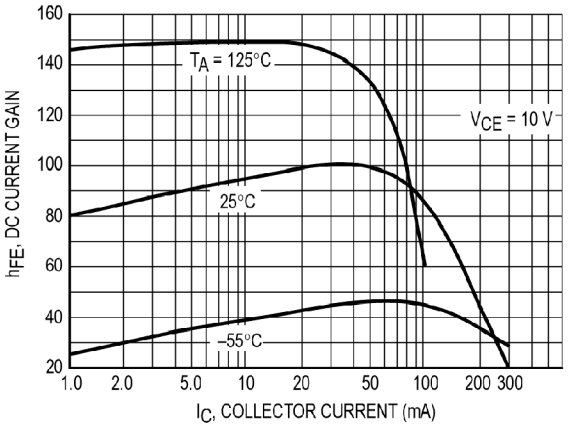
Operating and storage junction temperature range

T_J，T_{stg}: -55℃ to +150℃

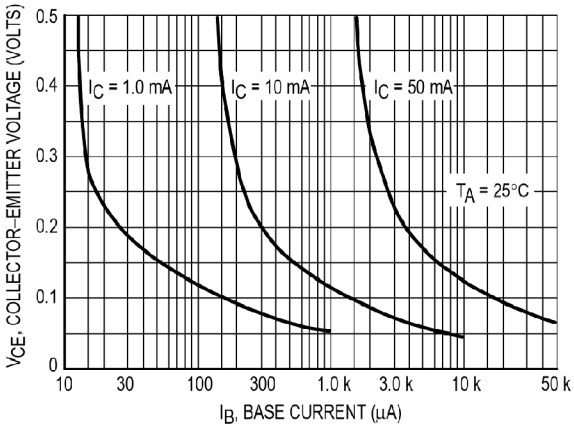
ELECTRICAL CHARACTERISTICS（Tamb=25℃ unless otherwise specified）

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	Ic= 100μA， I_E=0	400			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= 1 mA， I_B=0	400			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E=100μA， I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=400 V， I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=400 V，			5	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 4 V， I_C=0			0.1	μA
DC current gain	$H_{FE\ (1)}$	V_{CE}=10V，I_C=10 mA	80		300	
	$H_{FE\ (2)}$	V_{CE}=10V， I_C=1mA	70			
	$H_{FE\ (3)}$	V_{CE}=10V，I_C=100 mA	60			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=10 mA， I_B=1mA			0.2	V
	V_{CE}(sat)	I_C=50 mA， I_B=5mA			0.3	V
Base-emitter sataration voltage	V_{BE}(sat)	I_C=10 mA， I_B= 1 mA			0.75	V
Transition frequency	f_T	V_{CE}=20V， I_C=10mA f =30MHz	50			MHz

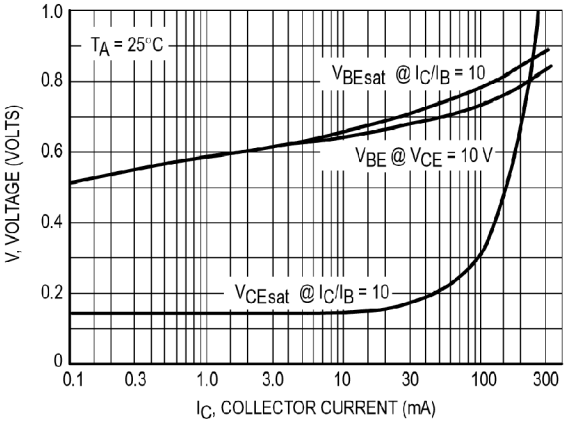
Typical Characteristics



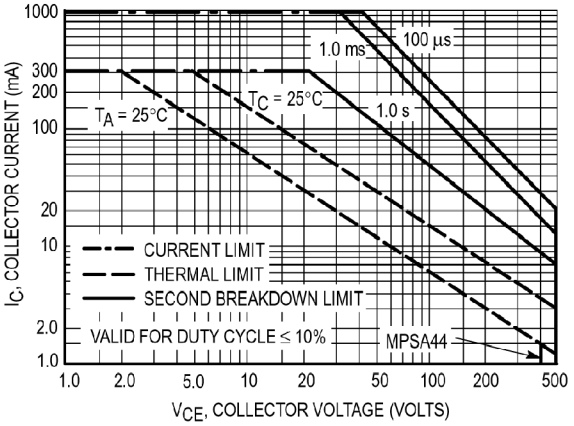
DC Current Gain



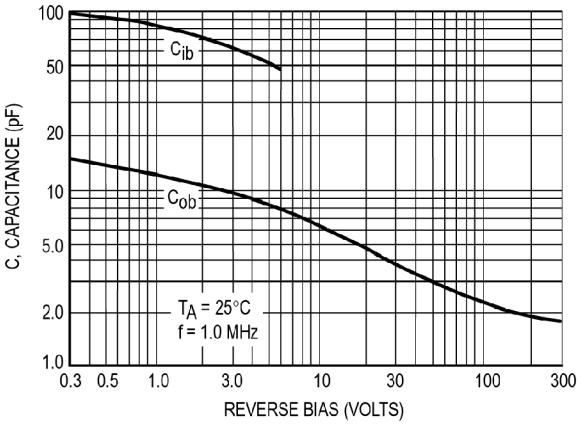
Collector Saturation Region



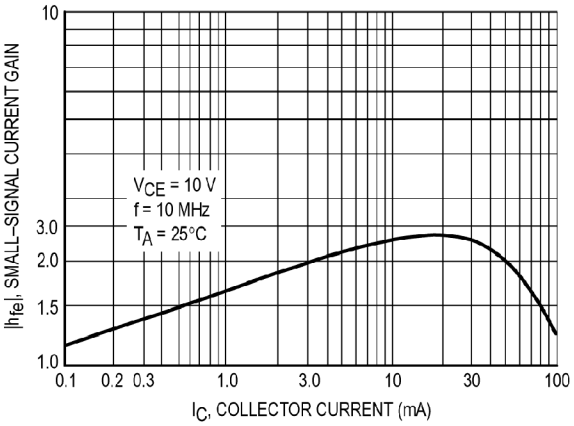
"On" Voltages



Active Region — Safe Operating Area

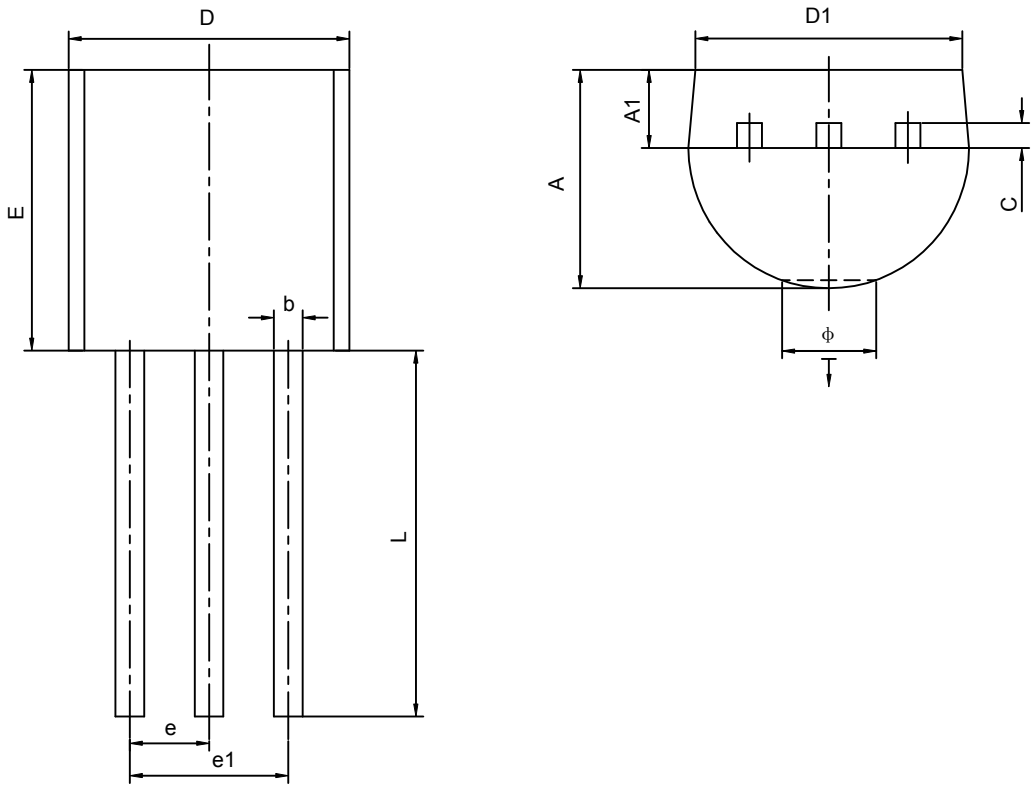


Capacitance



High Frequency Current Gain

TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
⊤	0.000	0.380	0.000	0.015