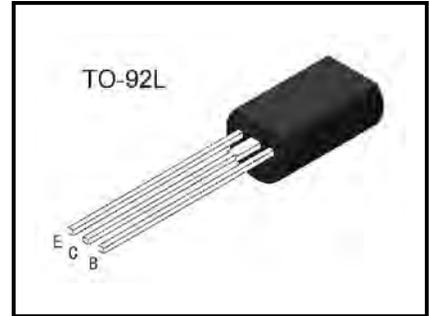


## TO-92L Plastic-Encapsulate Transistors

### High Current Applications

#### Features

- High current output up to -2A.
- Complement to FTC3205



#### Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$BV_{CBO}$	-30	V
Collector-Emitter Voltage	$BV_{CEO}$	-30	V
Emitter-Base Voltage	$BV_{EBO}$	-5	V
Collector Current	$I_C$	-2	A
Collector Power Dissipation	$P_C$	0.5	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 ~ +150	°C

#### Electrical Characteristics (Ta=25 °C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$BV_{CBO}$	$I_C = -1mA, I_E = 0$	40			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -10mA, I_B = 0$	30			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E = -1mA, I_C = 0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-100	nA
DC current gain	$h_{FE1}$	$V_{CE} = -2V, I_C = -500mA$	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5A, I_B = -0.03A$			-2.0	V
Base -emitter saturation voltage	$V_{BE}$	$V_{CE} = -2V, I_C = -500mA$			-1.0	V
Transition frequency	$f_T$	$V_{CE} = -2V, I_C = -500mA$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		48		pF

#### $h_{FE}$ Classification

Classification	O	Y
Range	100~200	160~320

# TO-92L Plastic-Encapsulate Transistors

## Typical Characteristics

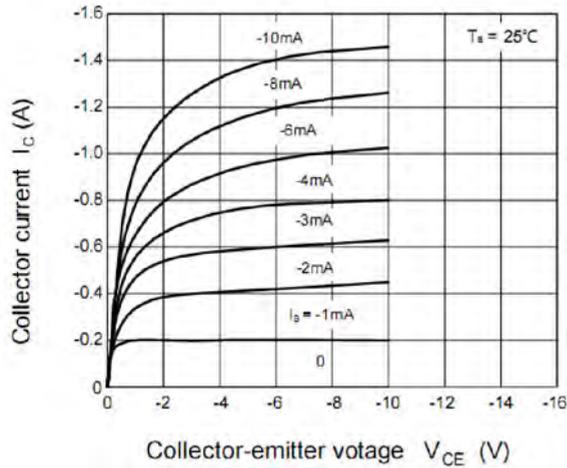


Fig.1 Static characteristics

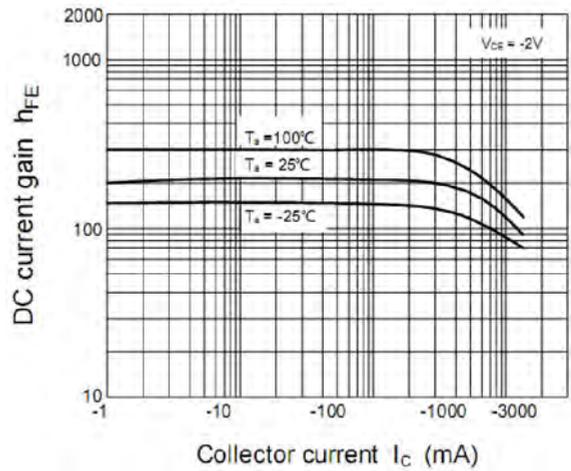


Fig.2 DC Current Gain

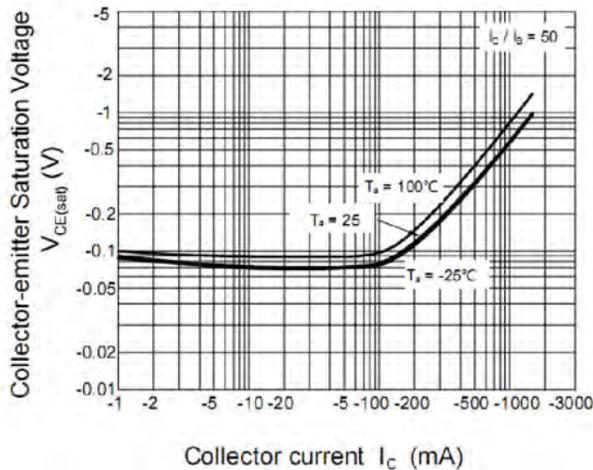


Fig.3 Collector-emitter Saturation Voltage

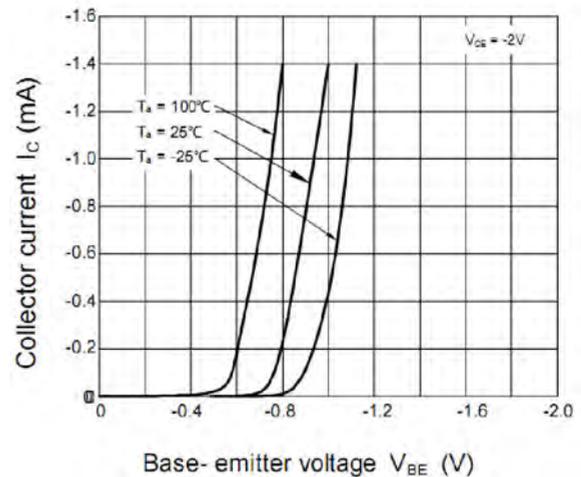


Fig.4 Safe Operating Area

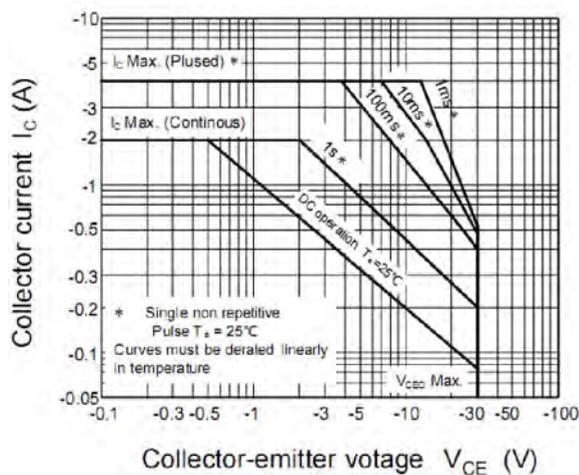


Fig.5 Safe Operating Area

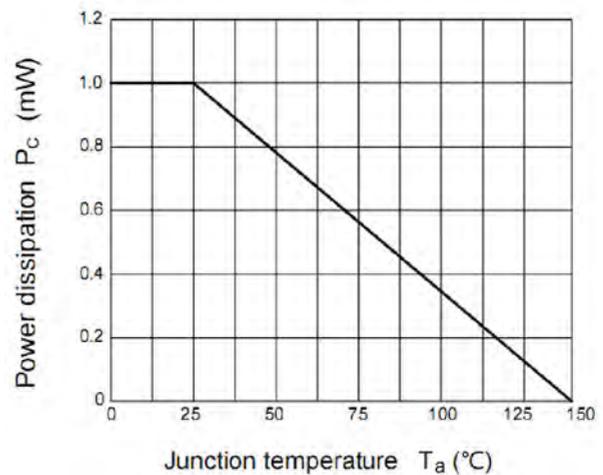


Fig.6 Power Derating

TO-92L Plastic-Encapsulate Transistors

Package Dimensions

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.60	4.00	0.142	0.157
A1	2.20	2.60	0.087	0.102
b	0.40	0.50	0.016	0.020
b1	0.50	0.65	0.020	0.026
c	0.35	0.45	0.014	0.018
D	4.60	5.00	0.181	0.197
E	7.60	8.00	0.299	0.315
e	1.24	1.30	0.049	0.051
e1	2.48	2.60	0.098	0.102
L	13.50	14.50	0.531	0.571
L1	1.50	1.90	0.059	0.075