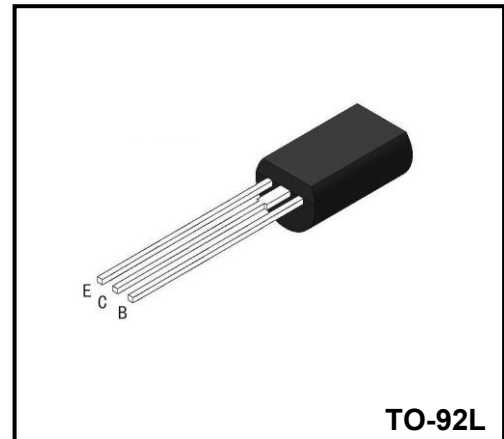


NPN Plastic-Encapsulate Transistors

Color TV Audio Output

Color TV Vertical Deflection Output

♣Complement to 2SA1013



TO-92L

Absolute Maximum Ratings Ta=25°C unless otherwise noted

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	180	V
Collector-Emitter Voltage	BV_{CEO}	160	V
Emitter-Base Voltage	BV_{EBO}	6	V
Collector Current	I_C	1	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C

Electrical Characteristics Ta=25°C unless otherwise noted

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	180			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	160			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 160V, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			1	μA
DC current gain	h_{FE}	$V_{CE} = 5V, I_C = 200mA$	60		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.5	V
Base-emitter voltage (on)	$V_{BE(on)}$	$V_{CE} = 5V, I_C = 5mA$			0.75	V
Transition frequency	f_T	$V_{CE} = 5V, I_C = 200mA$	20			MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$			20	pF

h_{FE} Classification

Classification	2SC2383L-R	2SC2383L-O	2SC2383L-Y
Range	60-120	100-200	160-320

Typical Characteristics

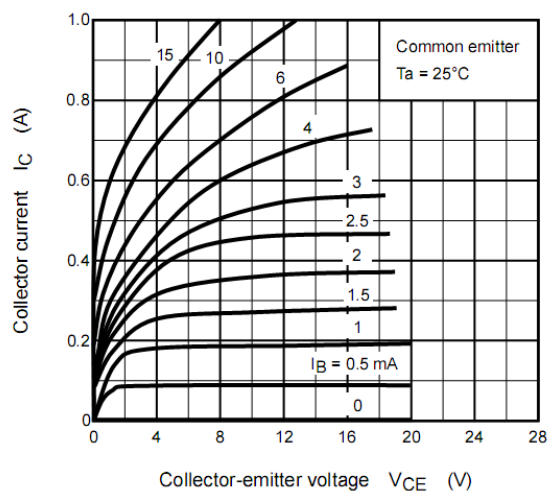


Figure 1. Static Characteristic

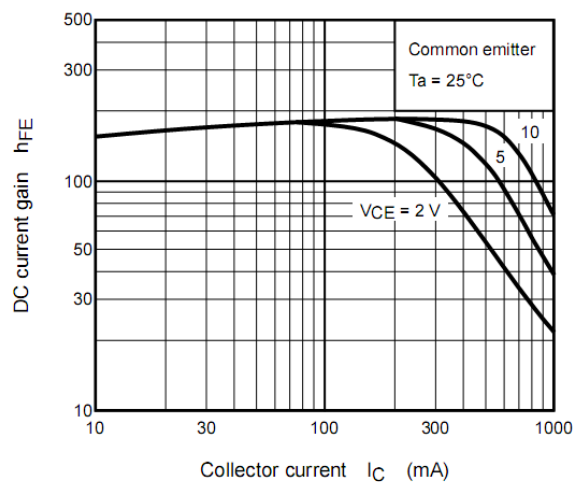


Figure 2. DC current Gain

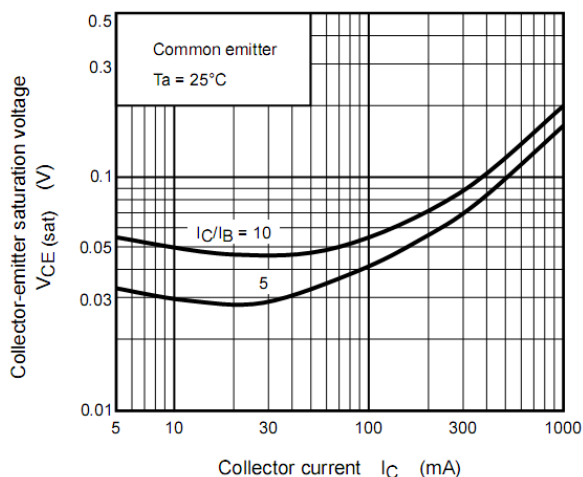


Figure 3. Saturation Voltage

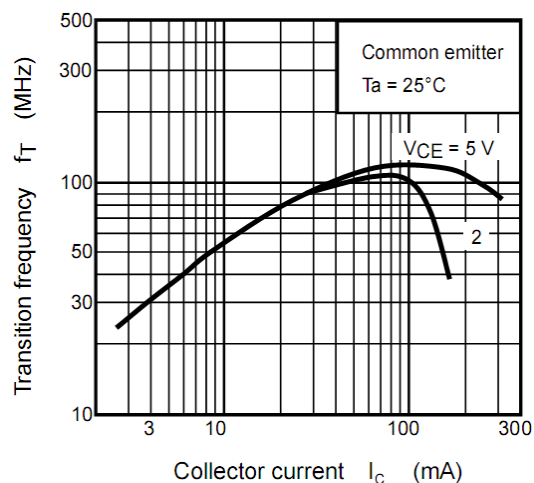


Figure 4. Current Gain Bandwidth Product

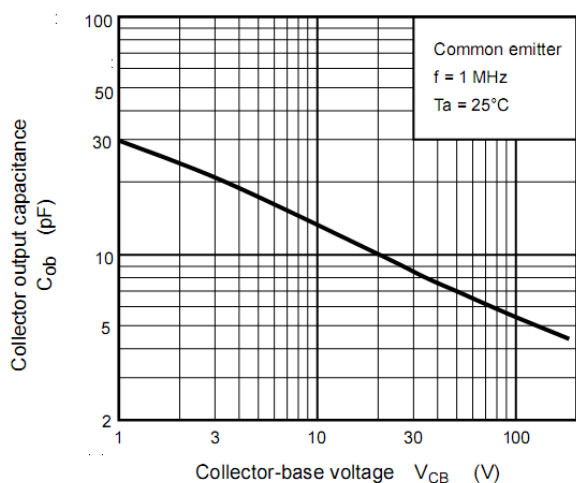


Figure 5. Collector Output Capacitance

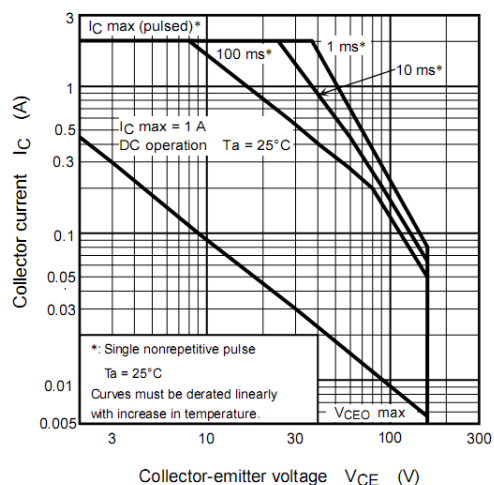


Figure 6. Safe Operating Area

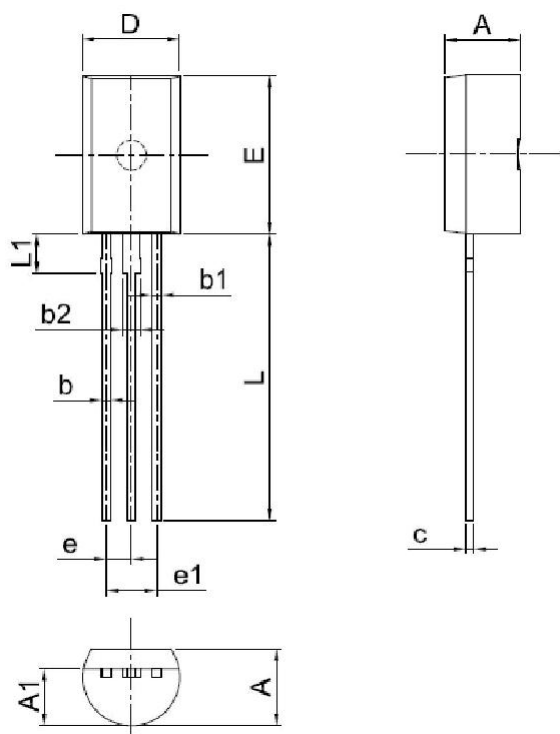
Ordering information

Package	Packing Description	Base Quantity
TO-92L	Bulk	1000pcs/Bag

Package Dimensions

TO-92L

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



Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.