

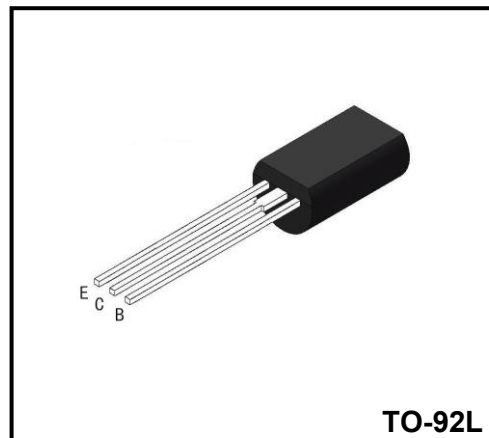
NPN Plastic-Encapsulate Transistors

APPLICATIONS

- ◆ Collor TV vertical defelection output.
- ◆ Color TV class B sound output

FEATURES

- ◆ High breakdown voltage.($BV_{CEO}=160V$)
- ◆ Large Continuous Collector Current Capability.
- ◆ Complementary to KTA1275



Absolute Maximum Ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Value	Unit
Collector-base voltage	BV_{CBO}	160	V
Collector-emitter voltage	BV_{CEO}	160	V
Emitter-base voltage	BV_{EBO}	6	V
Collector current	I_C	1	A
Base current	I_B	0.5	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 ~ 150	$^{\circ}C$

Electrical Characteristics ($T_a = 25^{\circ}C$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	160			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	160			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 150V, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6V, I_C = 0$			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	KTC3228-R	KTC3228-O	KTC3228-Y
Range	60~120	100~200	160~320

Typical Characteristics

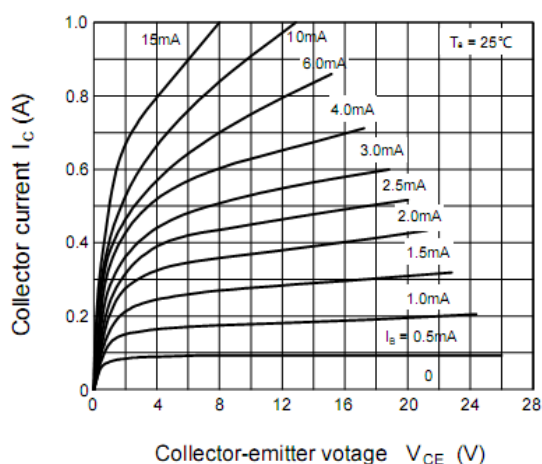


Figure 1. Static Characteristic

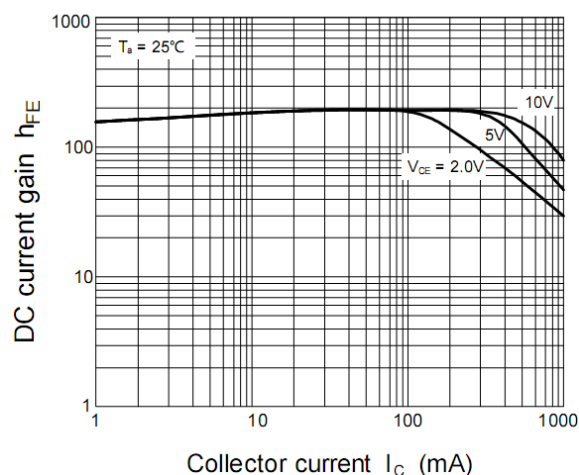


Figure 2. DC current Gain

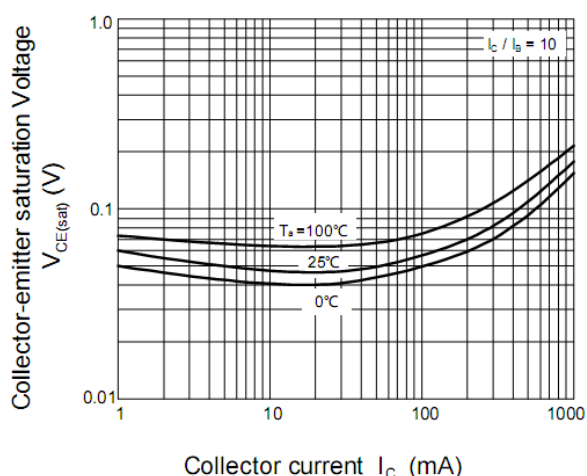


Figure 3. Collector-emitter Saturation Voltage

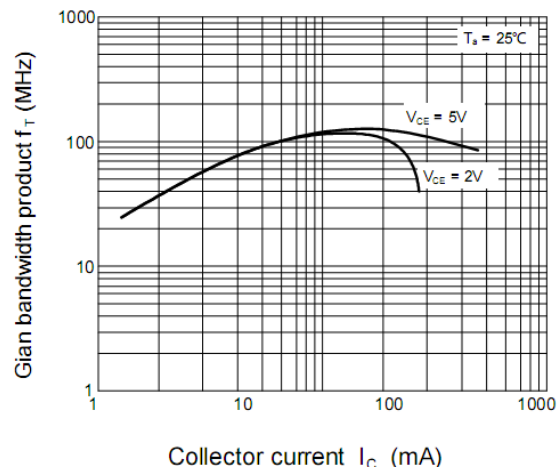


Figure 4. Current Gain Bandwidth Product

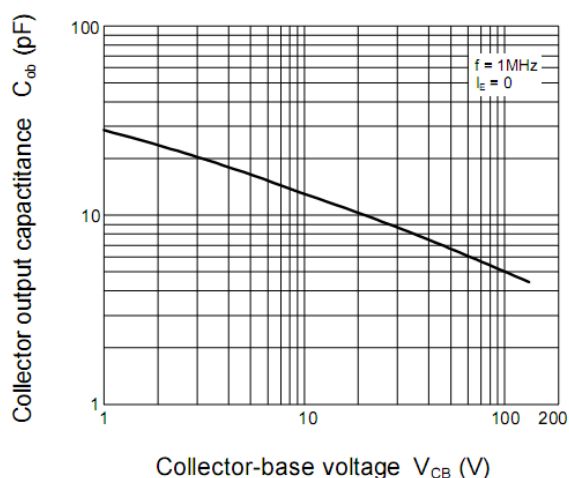


Figure 5. Collector Output Capacitance

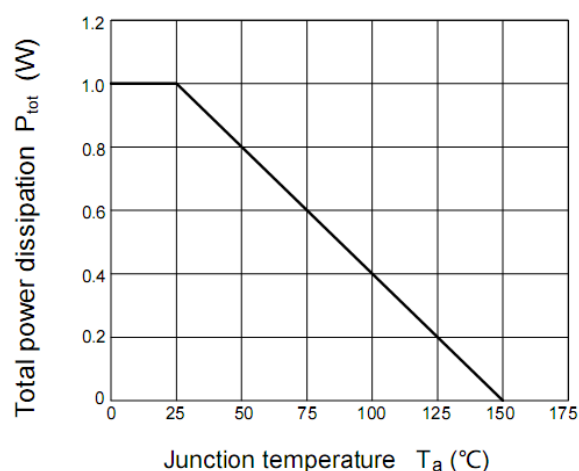


Figure 6. Power Derating

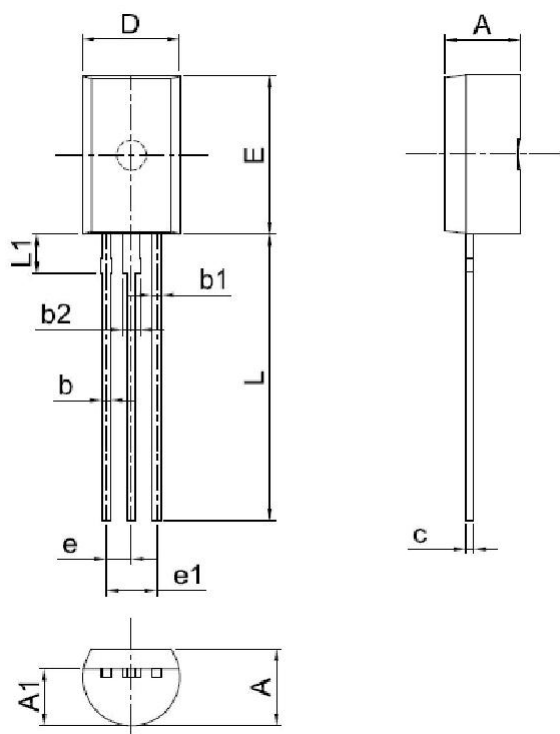
Ordering information

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



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