

TO-92L Plastic-Encapsulate Transistors

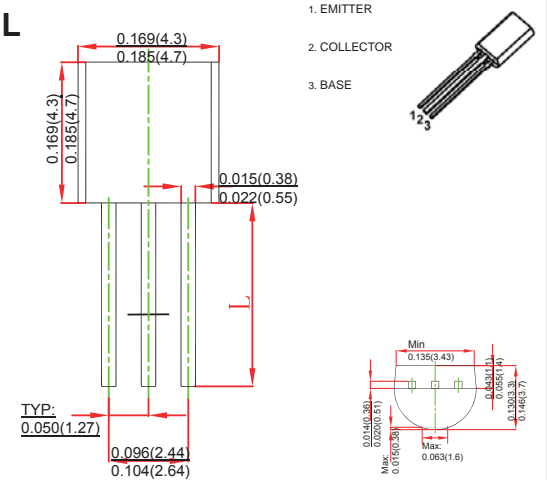
FEATURE

- High Voltage: $V_{CEO}=160V$
- Large Continuous Collector Current Capability
- Complementary to 2SA1013
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style:TO-92L molded plastic
- Mounting position:any

TO-92L



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	0.75	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55 to +150	°C

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C=100\mu A, I_E=0$	160		V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C=10mA, I_B=0$	160		V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E=10\mu A, I_C=0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB}=150V, I_E=0$		1	μA
Collector cut-off current	I_{CER}	$V_{CB}=150V, R_{EB}=10M\Omega$		10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6V, I_C=0$		1	μA
DC current gain	h_{FE1}	$V_{CE}=5V, I_C=200mA$	60	320	
	h_{FE2}	$V_{CE}=5V, I_C=10mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		1	V
Base-emitter voltage	V_{BE}	$I_C=5mA, V_{CE}=5V$		0.75	V
Transition frequency	f_T	$V_{CE}=5V, I_C=200mA$	20		MHz

CLASSIFICATION OF h_{FE1}

Rank	R	O	Y
Range	60-120	100-200	160-320

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

