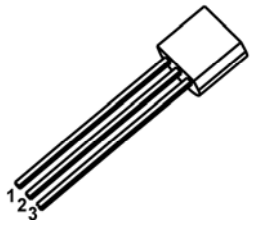
FEATURES

- High Voltage
- Complement to BC546,BC547,BC548

TO – 92



1. COLLECTOR
2. BASE
3. EMITTER

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BC556	-80	V
		BC557	-50	
		BC558	-30	
V_{CEO}	Collector-Emitter Voltage	BC556	-65	V
		BC557	-45	
		BC558	-30	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-0.1	A
P_C	Collector Power Dissipation		625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient		200	℃/W
T_j	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55~+150	℃

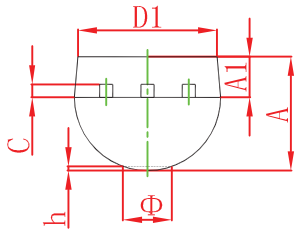
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

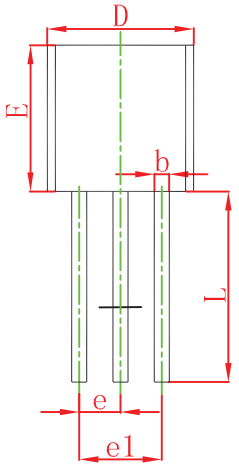
Parameter		Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC556	$V_{(BR)CBO}$	I_C= -0.1mA,I_E=0	-80			V
	BC557			-50			
	BC558			-30			
Collector-emitter breakdown voltage	BC556	$V_{(BR)CEO}$	I_C=-2mA,I_B=0	-65			V
	BC557			-45			
	BC558			-30			
Emitter-base breakdown voltage		$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	BC556	I_{CBO}	V_{CB}=-70V,I_E=0			-0.1	μA
	BC557		V_{CB}=-45V,I_E=0			-0.1	μA
	BC558		V_{CB}=-25V,I_E=0			-0.1	μA
Collector cut-off current	BC556	I_{CEO}	V_{CE}=-60V,I_B=0			-0.1	μA
	BC557		V_{CE}=-40V,I_B=0			-0.1	μA
	BC558		V_{CE}=-25V,I_B=0			-0.1	μA
Emitter cut-off current		I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain		h_{FE}*	V_{CE}=-5V, I_C=-2mA	120		800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-10mA,I_B=-0.5mA			-0.3	V
			I_C=-100mA,I_B=-5mA			-0.65	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C=-10mA,I_B=-0.5mA			-0.8	V
			I_C=-100mA,I_B=-5mA			-1	V
Base-emitter voltage		V_{BE}	V_{CE}=-5V, I_C=-2mA	-0.55		-0.7	V
			V_{CE}=-5V, I_C=-10mA			-0.82	V
Collector output capacitance		C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz			6	pF
Transition frequency	BC556	f_T	V_{CE}=-5V,I_C=-10mA, f=50MHz		280		MHz
	BC557				320		MHz
	BC558				360		MHz

CLASSIFICATION of h_{FE}

RANK	A	B	C
RANGE	120-220	180-460	420-800

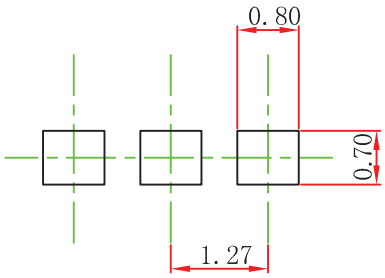
TO-92 Package Outline Dimensions





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	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.