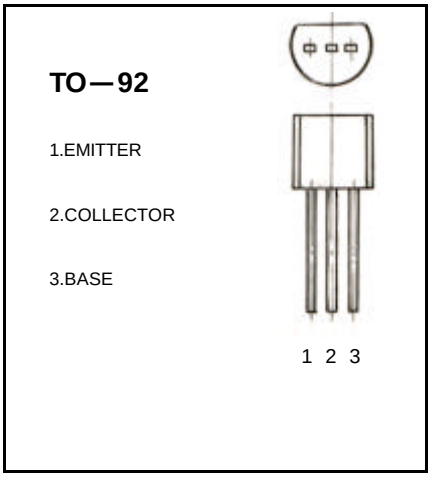
TO-92 Plastic-Encapsulate Transistors

AV1815 TRANSISTOR（NPN）



FEATURES

Power dissipation

P_{CM} : 0.4 W（Tamb=25℃）

Collector current

I_{CM} : 0.15 A

Collector-base voltage

$V_{(BR)CBO}$: 60 V

Operating and storage junction temperature range

T_J，T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS（Tamb=25℃ unless otherwise specified）

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= 100μA， I_E=0	60			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= 0.1 mA， I_B=0	50			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= 100μA， I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}= 60 V， I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= 50 V， I_B=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5 V， I_C=0			0.1	μA
DC current gain	$h_{FE\ (1)}$	V_{CE}= 6 V， I_C= 2mA	70		700	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C= 100mA， I_B= 10 mA			0.25	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C= 100 mA， I_B= 10mA			1	V
Transition frequency	f_T	V_{CE}= 10 V， I_C= 1mA f=30MHz	80			MHz

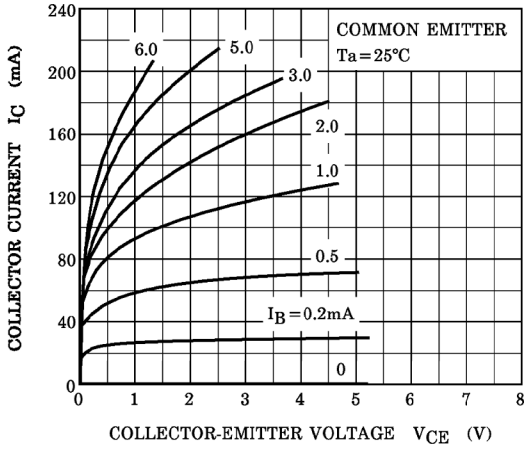
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

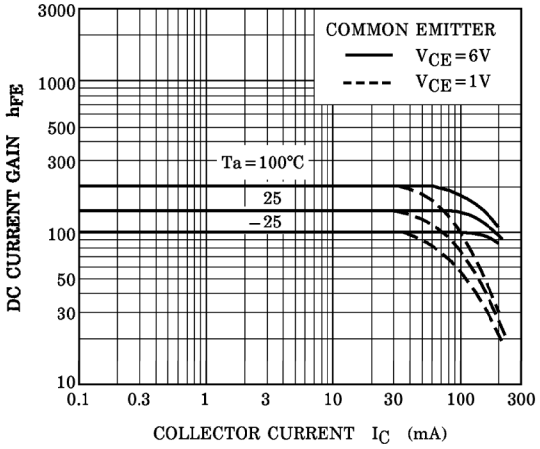
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Typical Characteristics

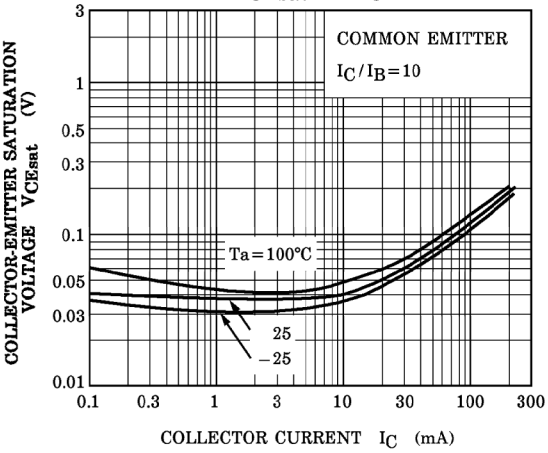
I_C – V_{CE}



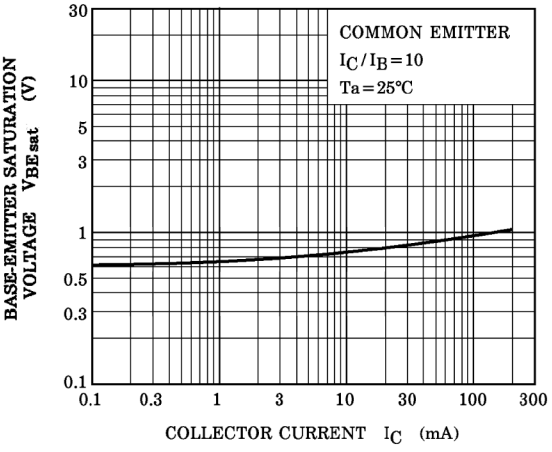
h_{FE} – I_C



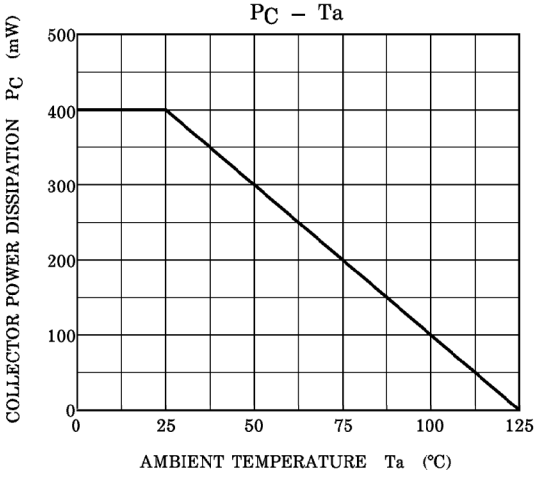
V_{CEsat} – I_C



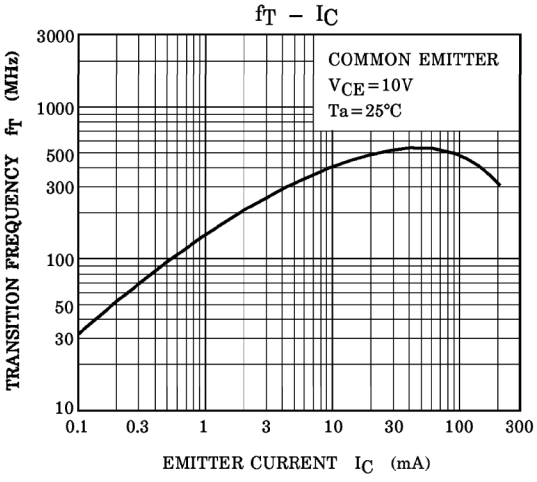
V_{BEsat} – I_C



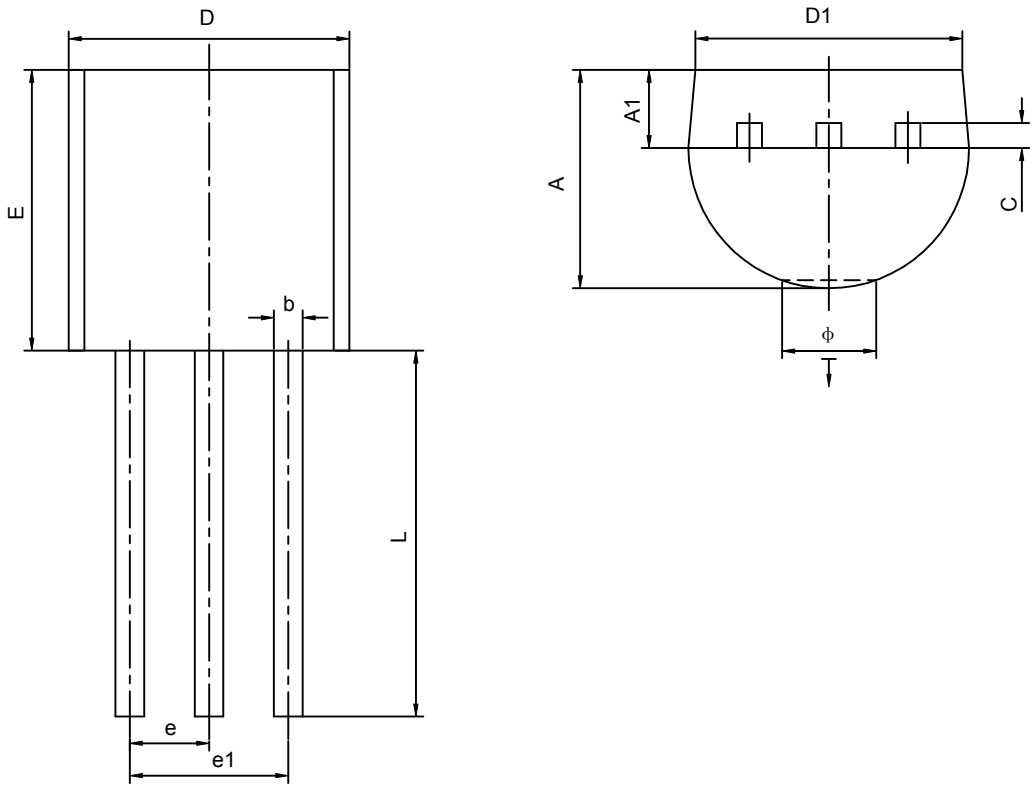
P_C – Ta



f_T – I_C



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	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
⊤	0.000	0.380	0.000	0.015