



TO-92 Plastic-Encapsulate Transistors

D965 TRANSISTOR (NPN)

FEATURES

Power dissipation

$P_{CM} : 0.75 \text{ W (Tamb=25)}$

Collector current

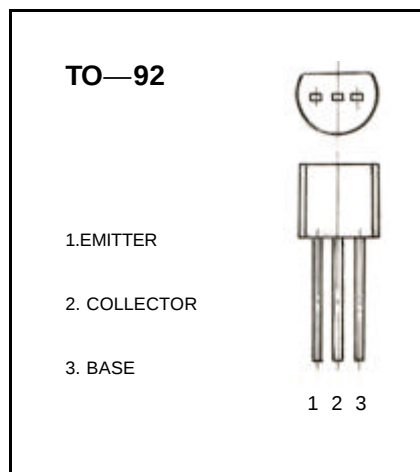
$I_{CM} : 5 \text{ A}$

Collector-base voltage

$V_{(BR)CBO} : 42 \text{ V}$

Operating and storage junction temperature range

$T_J, T_{stg} : -55 \text{ to } +150$



ELECTRICAL CHARACTERISTICS (Tamb=25 unless otherwise specified)

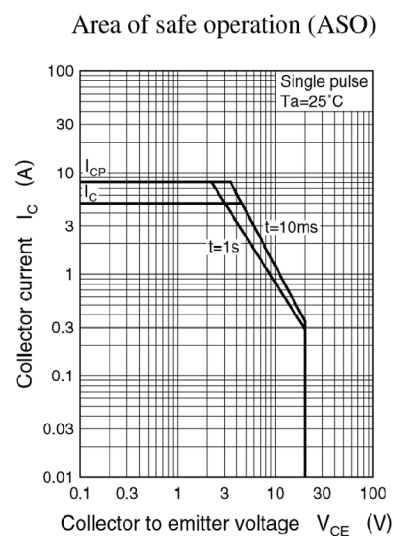
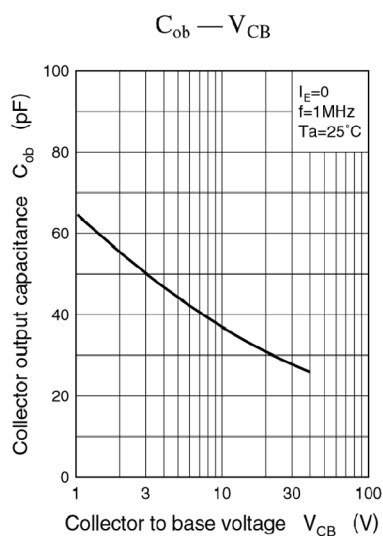
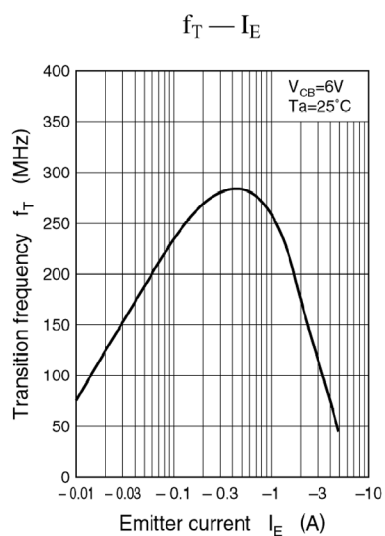
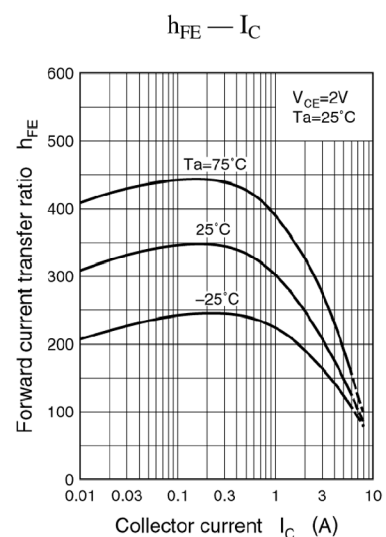
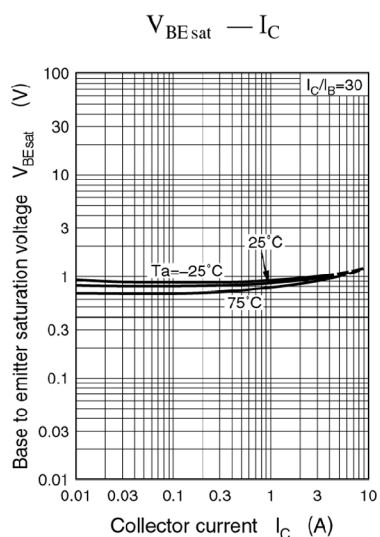
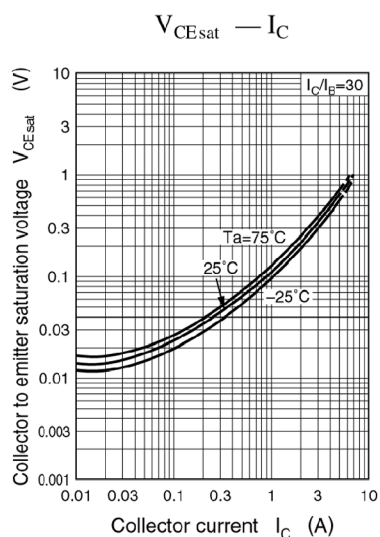
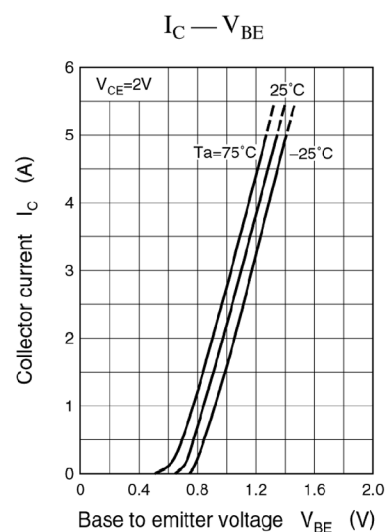
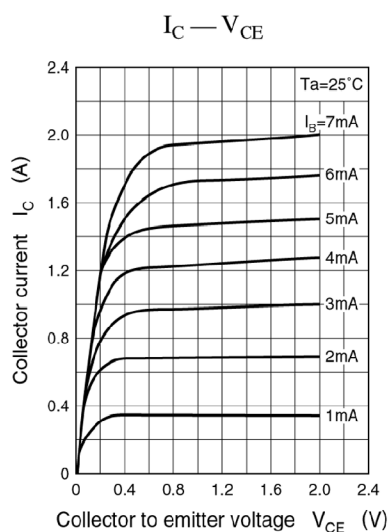
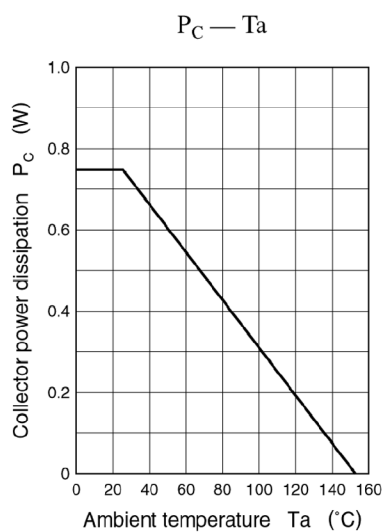
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	42			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	22			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\text{ }\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30\text{ V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{ V}, I_C=0$			0.1	μA
DC current gain	$H_{FE(1)}$	$V_{CE}=2\text{ V}, I_C=0.15\text{ mA}$	150			
	$H_{FE(2)}$	$V_{CE}=2\text{ V}, I_C=500\text{ mA}$	340		950	
	$H_{FE(3)}$	$V_{CE}=2\text{ V}, I_C=2000\text{ mA}$	150			
Collector-emitter saturation voltage	$V_{CE(Sat)}$	$I_C=3000\text{ mA}, I_B=100\text{ mA}$			0.35	V

CLASSIFICATION OF $H_{FE(2)}$

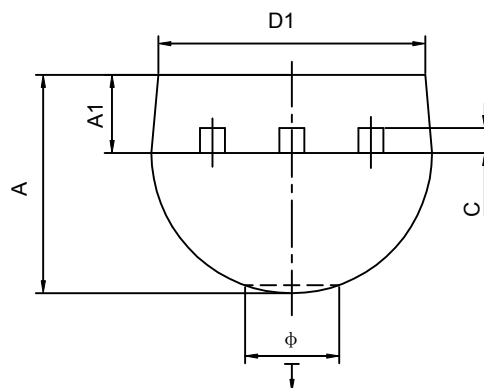
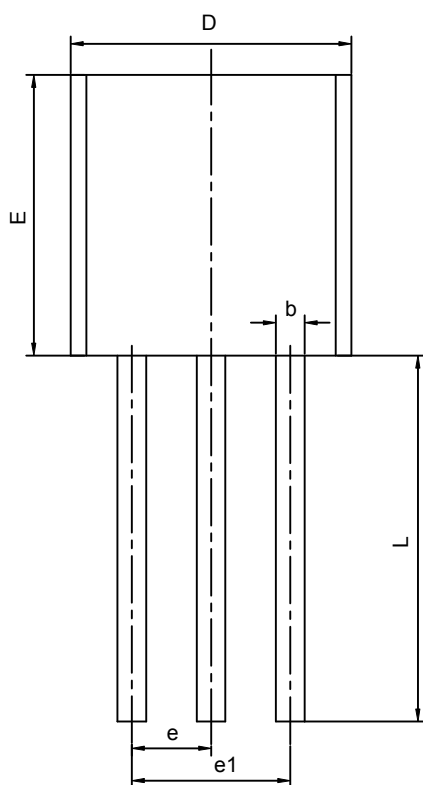
Rank	R	T
Range	340-600	560-950

Typical Characteristics

D965



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
$\downarrow$	0.000	0.380	0.000	0.015