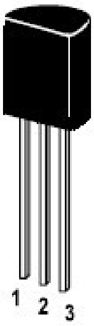
TO-92 Plastic-Encapsulate Transistors



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package
Weight approx. 0.19g

2SC2328 TRANSISTOR (NPN)

FEATURES

- Complement to 2SA928A
- High DC Current Gain

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
P_C	Collector Power Dissipation	0.75	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	167	℃/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	$V_{(BR)CBO}$	I_C= 100μA,I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=30V,I_E=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}=2V, I_C=500mA	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1.5A,I_B=0.03A			2	V
Base-emitter voltage	V_{BE}	V_{CE}=2V, I_C=500mA			1	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0, f=1MHz		30		pF
Transition frequency	f_T	V_{CE}=2V,I_C=500mA		120		MHz

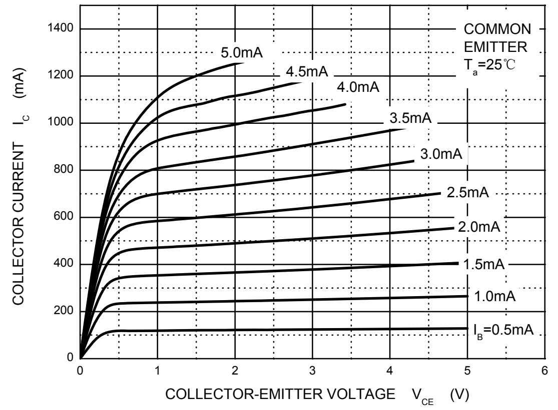
CLASSIFICATION OF h_{FE}

RANK	O	Y
RANGE	100-200	160-320

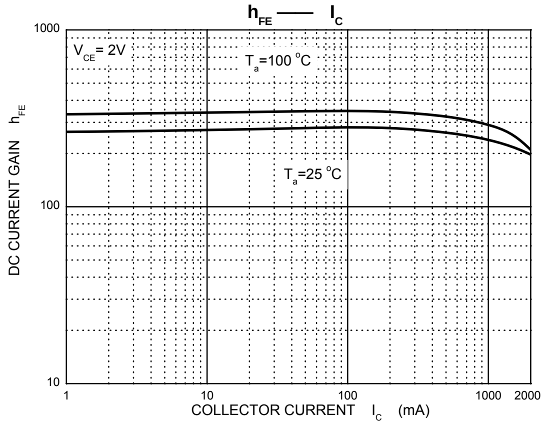
Typical Characteristics

2SC2328

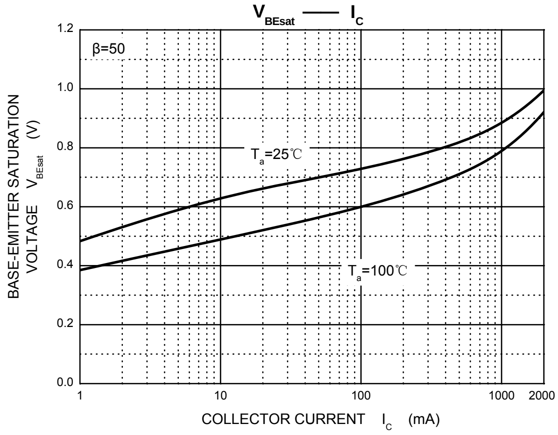
Static Characteristic



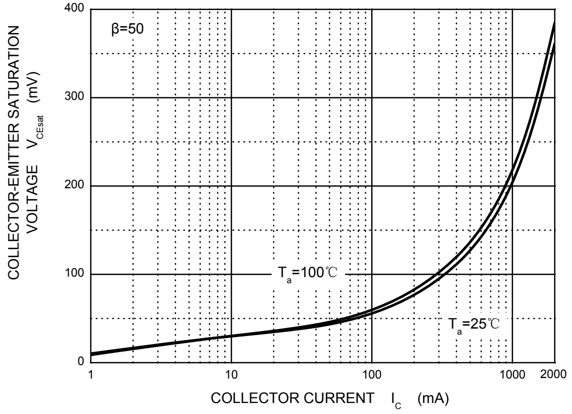
h_{FE} —— I_C



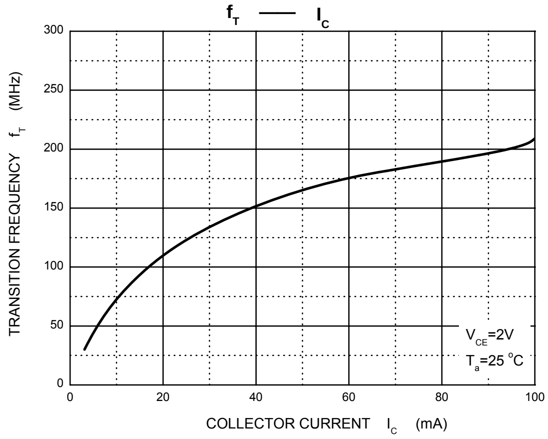
V_{BEsat} —— I_C



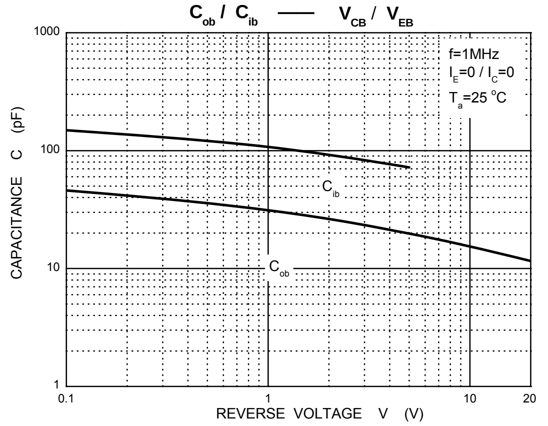
V_{CEsat} —— I_C



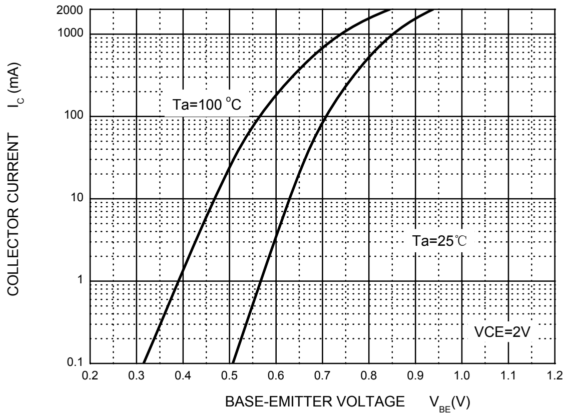
f_T —— I_C



C_{ob} / C_{ib} —— V_{CB} / V_{EB}



V_{BE} —— I_C



P_c —— T_a