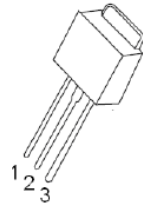
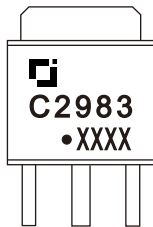


**TO-251-3L Plastic-Encapsulate Transistors****2SC2983** TRANSISTOR (NPN)**FEATURES**

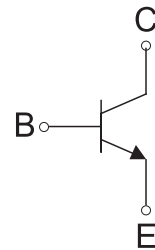
- High Transition Frequency

TO-251-3L

1. BASE
2. COLLECTOR
3. EMITTER

**MARKING**

C2983=Device code
Solid dot=Green moldinn compound device,
if none,the normal device
XXXX=Code

Equivalent Circuit**MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ 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	5	V
I_C	Collector Current	1.5	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

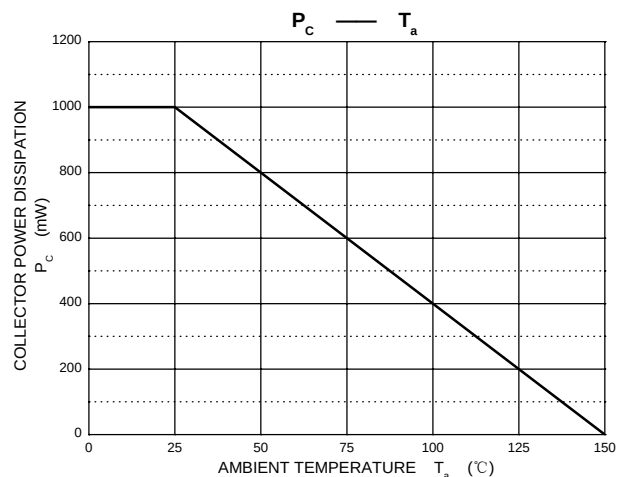
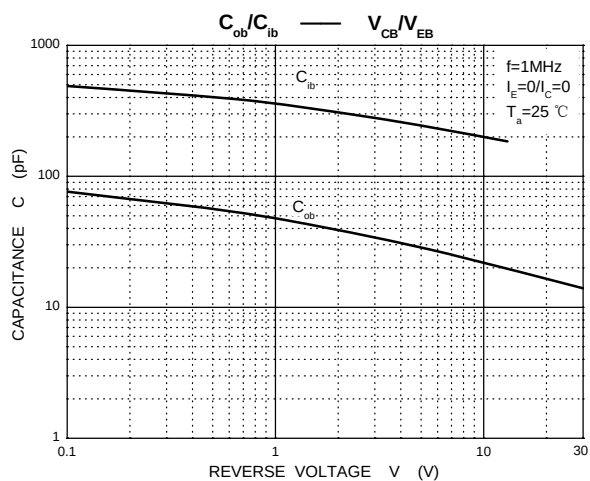
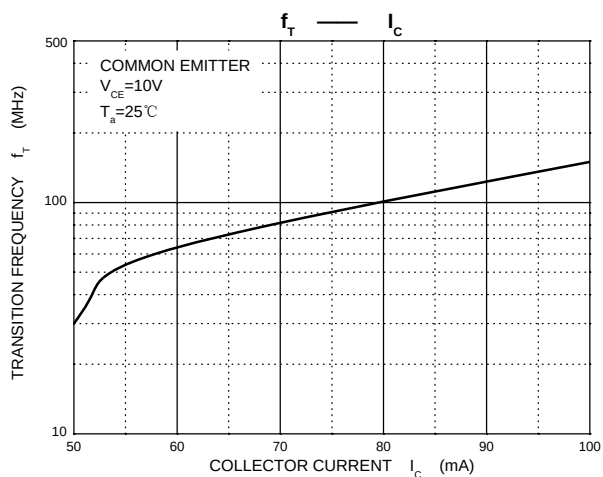
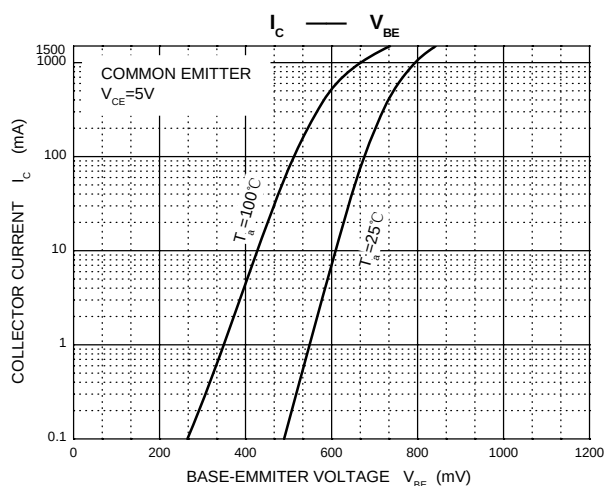
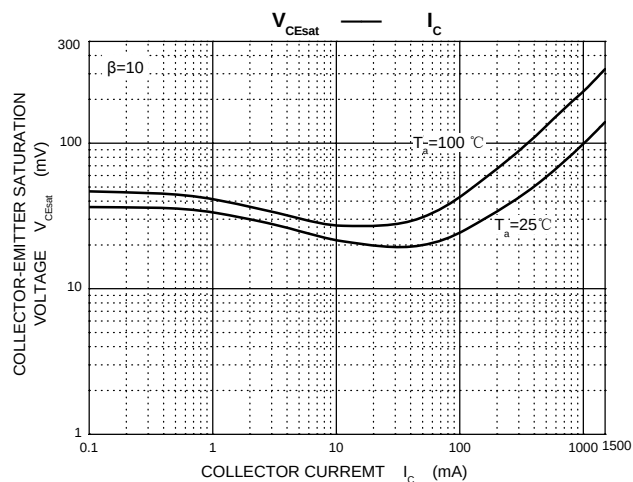
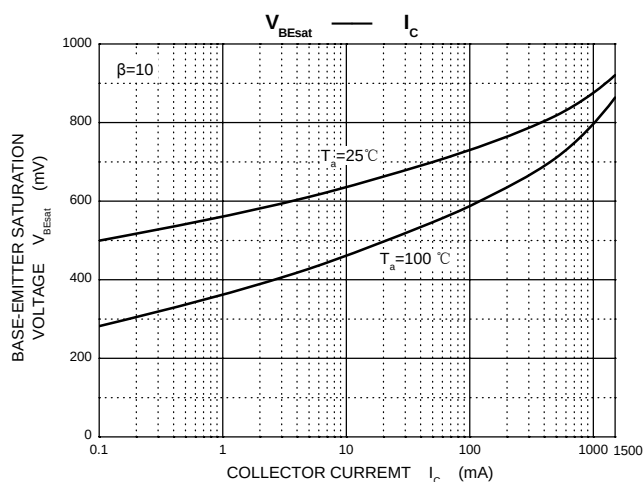
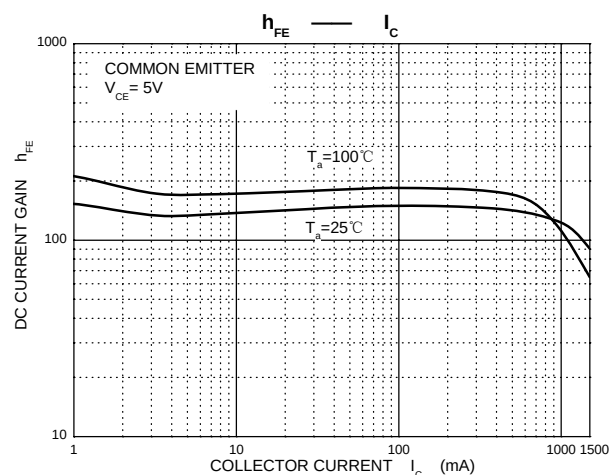
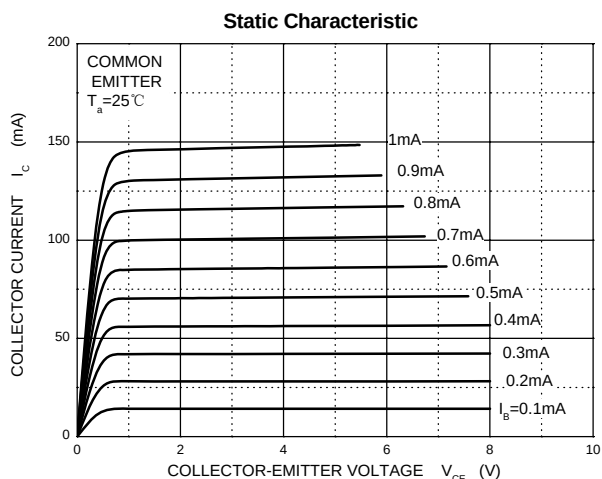
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	160			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =10mA, I _B =0	160			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =160V, I _E =0			1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			1	μA
DC current gain	h _{FE}	V _{CE} =5V, I _C =100mA	70		240	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA			1.5	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =500mA			1	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		25		pF
Transition frequency	f _T	V _{CE} =10V, I _C =100mA,		100		MHz

*Pulse test

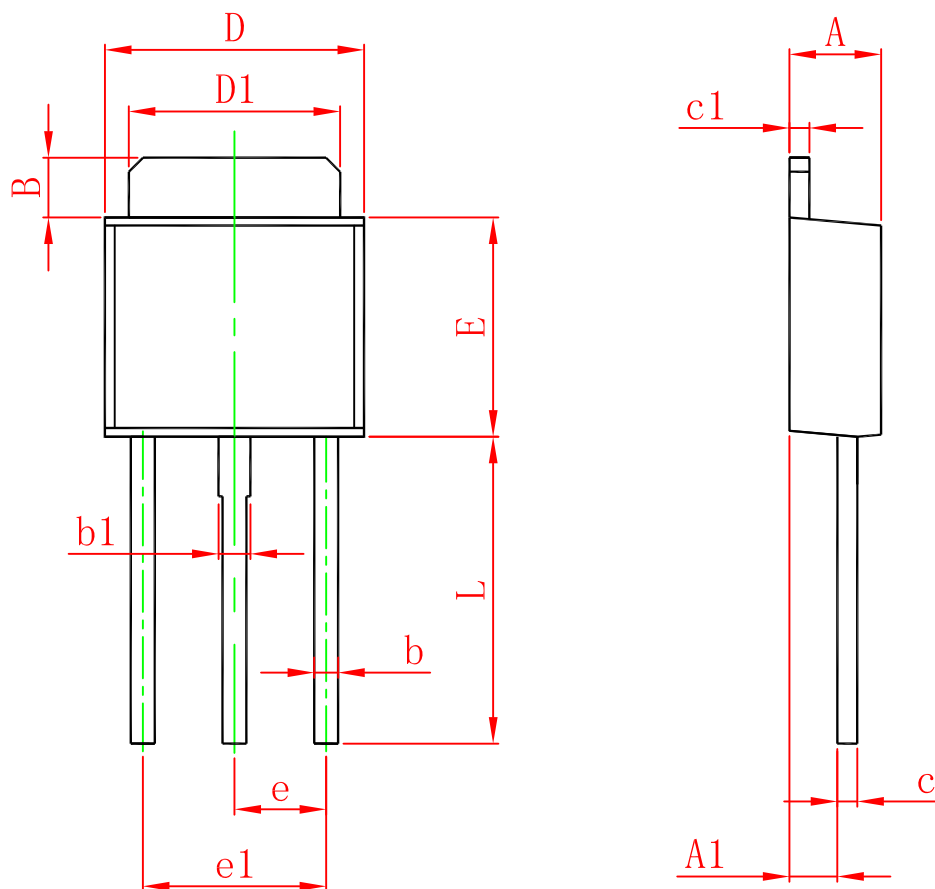
CLASSIFICATION OF h_{FE}

RANK	O	Y
RANGE	70-140	120-240

Typical Characteristics



TO-251-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311