Ordering number: EN 2557A

SANYO

No.2557A

2SC4188

NPN Epitaxial Planar Silicon Transistor

Ultrahigh-Definition CRT Display Video Output Applications

Features

- High breakdown voltage : $V_{CEO} \geqq 200V$
- Small reverse transfer capacitance and excellent high frequency characteristic : $c_{re} = 1.3pF$ typ
- Adoption of FBET process

Absolute Maximum Ratings at Ta = 25°C

				unit
Collector-to-Base Voltage	V_{CBO}		200	V
Collector-to-Emitter Voltage	V_{CEO}		200	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		100	mA
Collector Current (Pulse)	I_{CP}		200	mA
Collector Dissipation	P_C		1.5	W
		Tc = 25°C	10	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

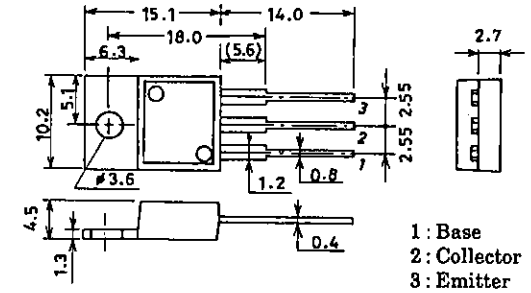
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=150V, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=10V, I_C=10mA$	※40		※320	
Gain-Bandwidth Product	f_T	$V_{CE}=30V, I_C=10mA$		150		MHz
Output Capacitance	Cob	$V_{CB}=30V, f=1MHz$		1.8		pF
Reverse Transfer Capacitance	Cre	$V_{CB}=30V, f=1MHz$		1.3		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=2mA$			0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=20mA, I_B=2mA$			1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	200			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	200			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V

The 2SC4188 is classified by 10mA h_{FE} as follows :

40 C 80	60 D 120	100 E 200	160 F 320

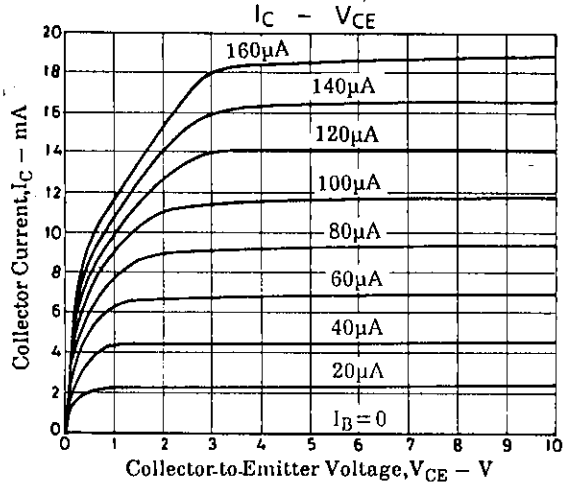
Package Dimensions 2010C

(unit : mm)

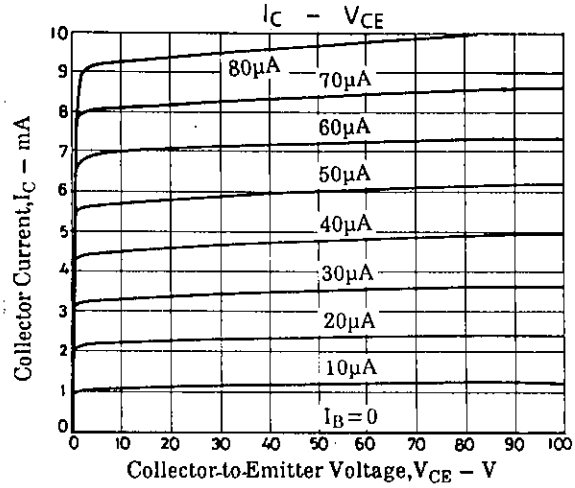


JEDEC: TO220AB
EIAJ : SC46

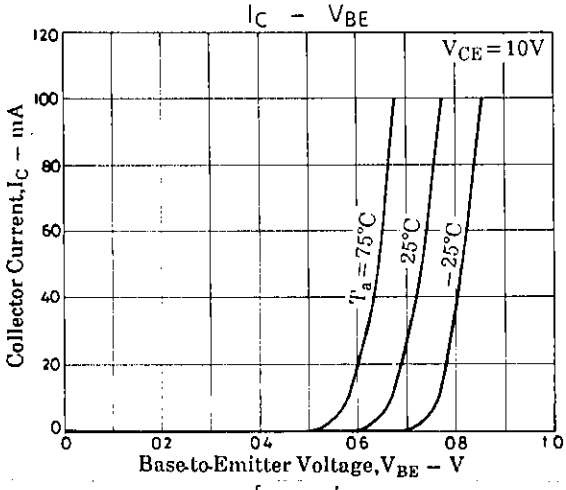
I_C – V_{CE}



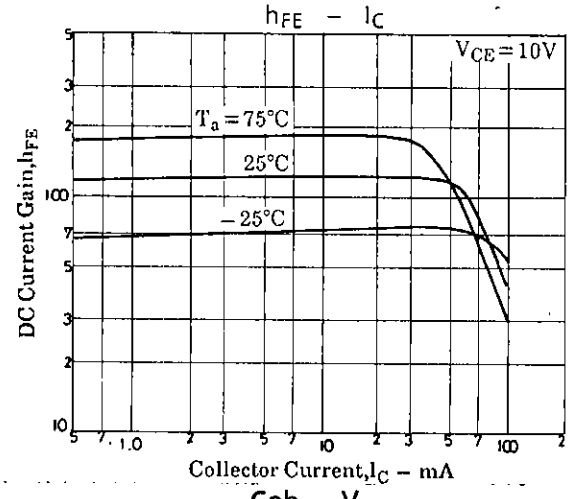
I_C – V_{CE}



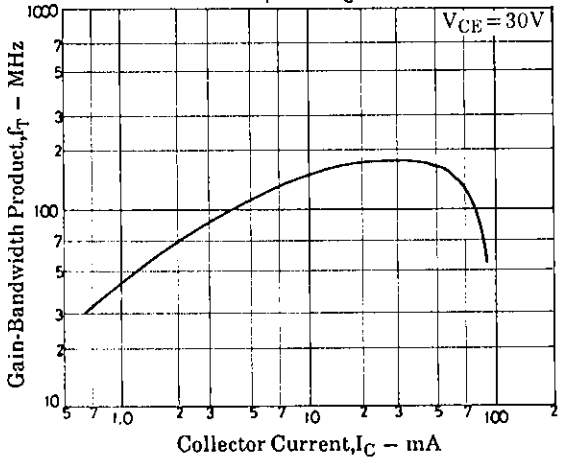
I_C – V_{BE}



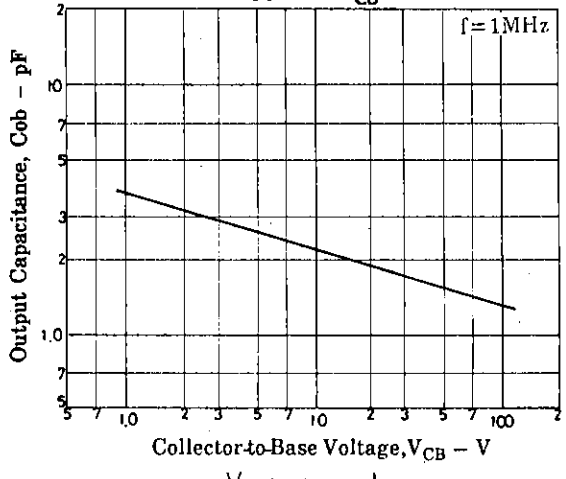
h_{FE} – I_C



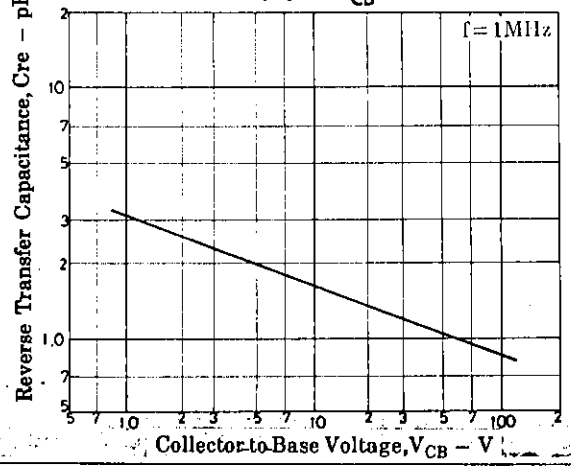
f_T – I_C



Cob – V_{CB}



Cre – V_{CB}



$V_{CE(sat)}$ – I_C