

**2SC4188**

Ultrahigh-Definition CRT Display Video Output Applications

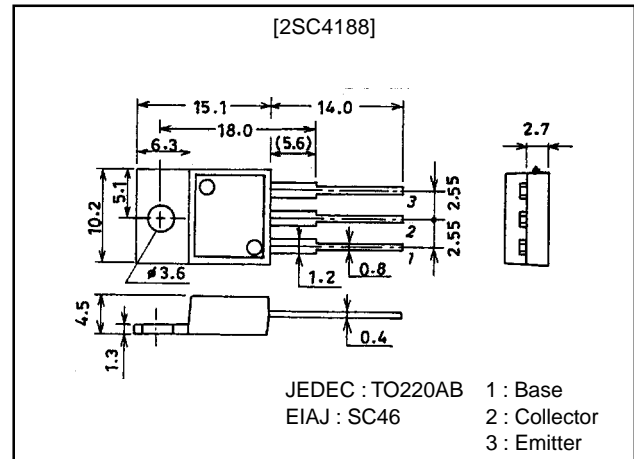
Features

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

Package Dimensions

unit:mm

2010C



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		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
		$T_c = 25^\circ C$	10	W
Junction Temperature	T_j		150	$^\circ C$
Storage temperature	T_{stg}		-55 to +150	$^\circ C$

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

40	C	80	60	D	120	100	E	200	160	F	320
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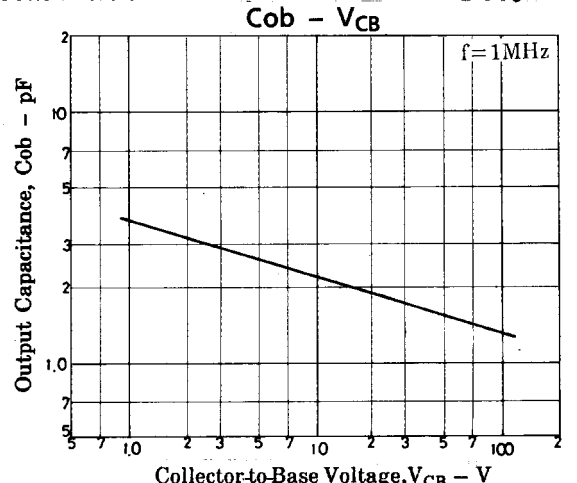
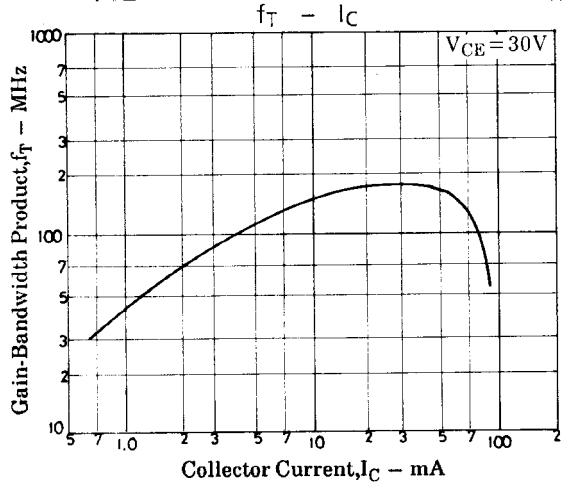
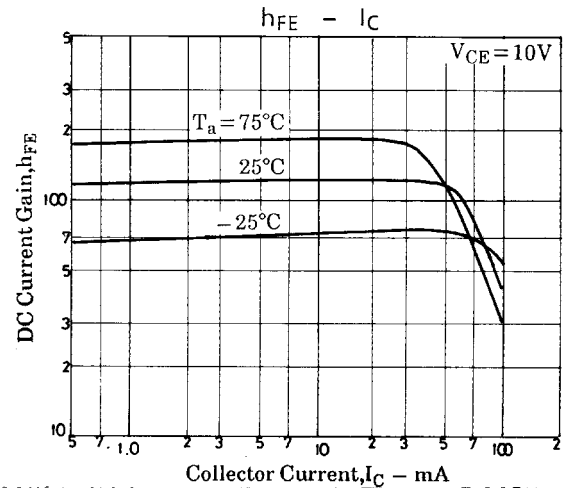
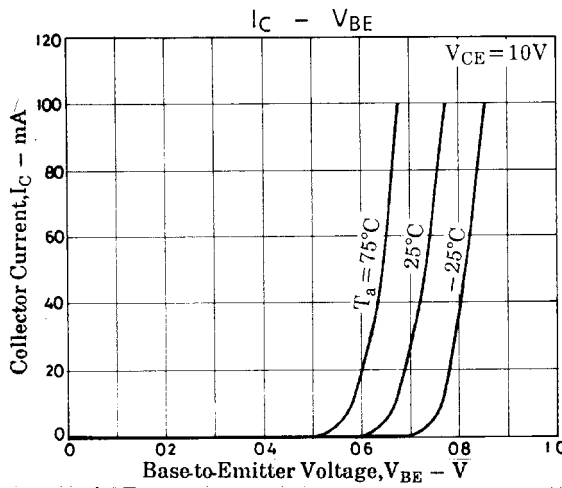
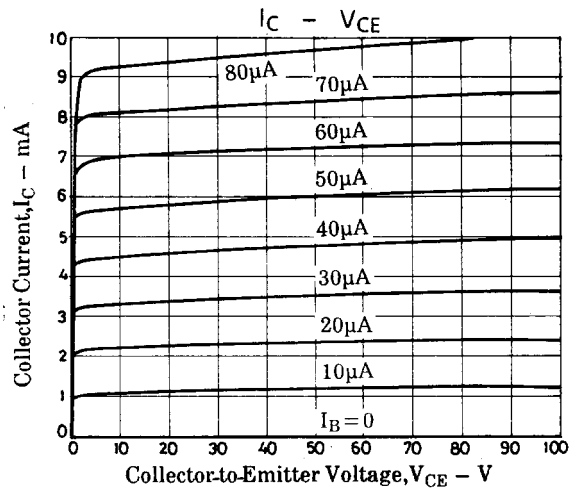
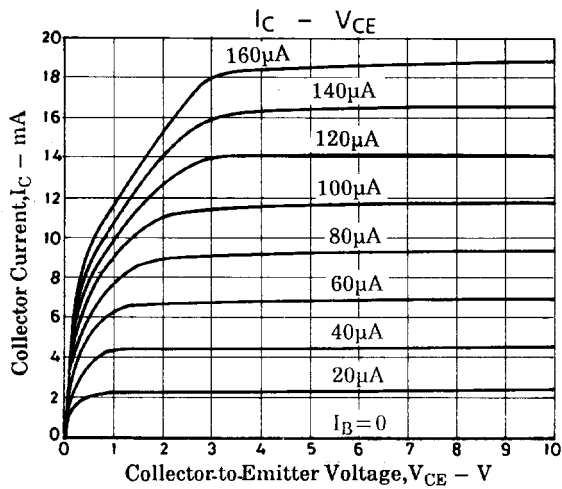
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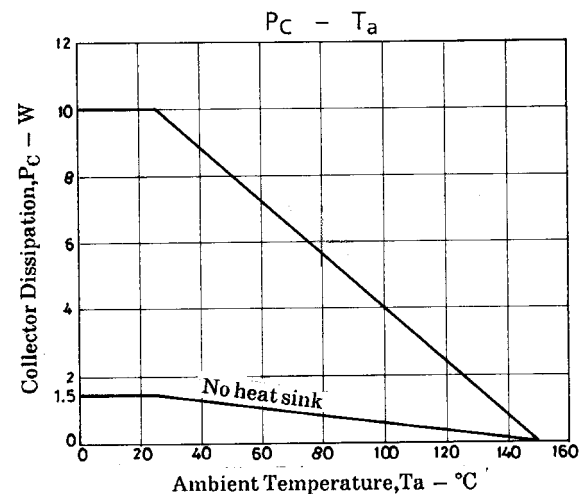
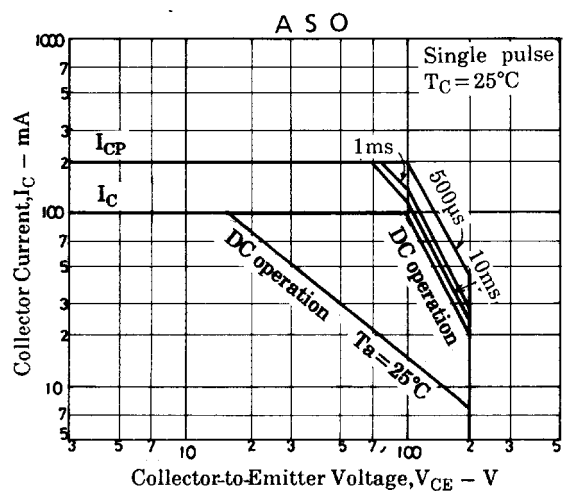
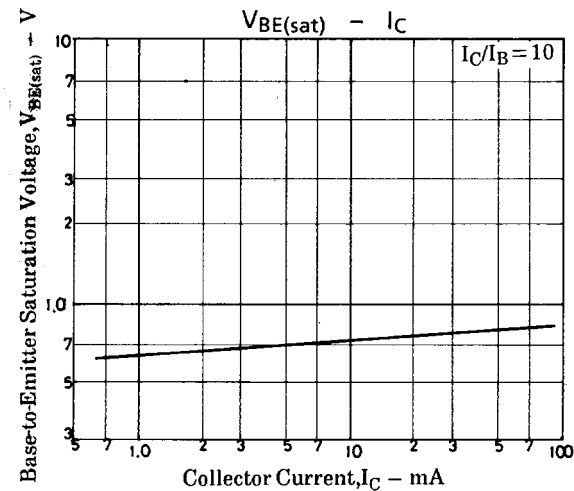
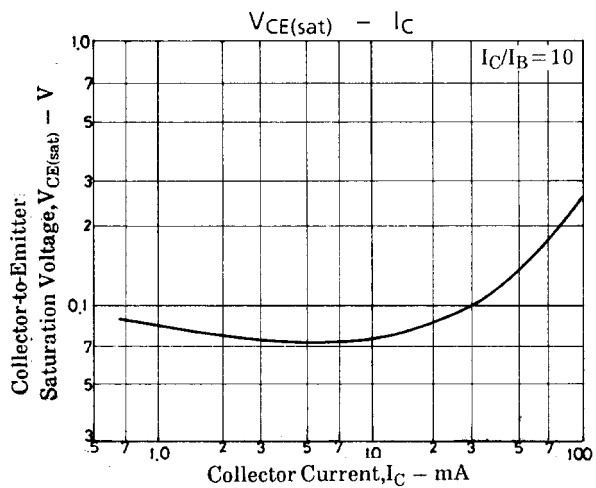
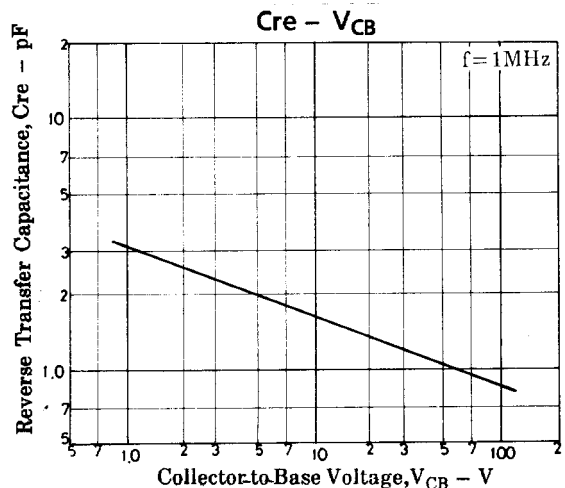
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Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
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	C_{ob}	$V_{CB}=30V, f=1MHz$		1.8		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=30V, f=1MHz$		1.3		pF
Collector-to-Emitter Saturatin Voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=2mA$			0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20mA, I_B=2mA$			1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	200			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	200			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V



2SC4188



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