

No.3172

2SA1580/2SC4104

PNP/NPN Epitaxial Planar Silicon Transistors

High-Definition CRT Display Applications

Features

- · High f_T
- · Small reverse transfer capacitance
- · Adoption of FBET process

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Absolute Maximum Ratings a	t Ta = 25°C		unit
Collector to Base Voltage	V_{CBO}	(-)70	V
Collector to Emitter Voltage	V_{CEO}	(-)60	V
Emitter to Base Voltage	V_{EBO}	(-)4	V
Collector Current	$I_{\mathbf{C}}$	(-)50	mA
Collector Current(Pulse)	I_{CP}	(-)100	mΑ
Collector Dissipation	$P_{\mathbb{C}}$	200	mW
Junction Temperature	Tj	150	$^{\circ}\mathrm{C}$
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)40V, I_E = 0$		(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)3V, I_C = 0$		(-)1.0	μA
DC Current Gain	$h_{ m FE}$	$V_{CE} = (-)10V, I_{C} = (-)10mA$	60%	270%	<u>-</u>
Gain-Bandwidth Product	$f_{\mathbf{T}}$	$V_{CE} = (-)10V, I_{C} = (-)10mA$	350	700	MHz
Base to Collector Time	r_{bb} ' c_c	$V_{CE} = (-)10V, I_{C} = (-)10mA$		8	PS
Constant					
Output Capacitance	c_{ob}	$V_{CB} = (-)10V_{f} = 1MHz$	(1.	7)1.3	рF
Reverse Transfer Capacitance	Cre	$V_{CB} = (-)10V_{f} = 1MHz$	•	3)1.0	рF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)20 \text{mA}, I_B = (-)2 \text{mA}$	•	(-0.6)0.5	v
	V _{BE(sat)}	$I_C = (-)20 \text{mA}, I_B = (-)2 \text{mA}$	1	(-)1.0	v
	V _{(BR)CBO}	$I_{\rm C} = (-)10 \mu {\rm A}, I_{\rm E} = 0$	(-)70	, ,=	v
C-E Breakdown Voltage	V _{(BR)CEO}		(-)60		v
E-B Breakdown Voltage	V _{(BR)EBO}	$I_{\rm E} = (-)10 \mu A, I_{\rm C} = 0$	(-)4		v
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$\ensuremath{\text{\#}}$: The 2SA1580/2SC4104 are classified by 10mA $\ensuremath{h_{FE}}$ as follows :

60 3 120	90 4 180	135 5 270
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Marking 2SA1580: QL

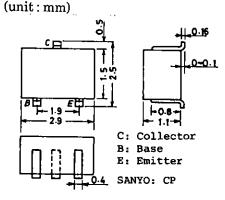
2SC4104: YY

h_{FE} rank: 3,4,5

Package Dimensions 2018A

min

max unit



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