Ordering number: EN 3172

SANYO

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

( ) : 2SA1580

Absolute Maximum Ratings at 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_C	(−)50	mA
Collector Current(Pulse)	I_{CP}	(−)100	mA
Collector Dissipation	P_C	200	mW
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}=(−)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_{FE}	V_{CE}=(−)10V,I_C=(−)10mA	60※		270※	
Gain-Bandwidth Product	f_T	V_{CE}=(−)10V,I_C=(−)10mA	350	700		MHz
Base to Collector Time Constant	$r_{bb}'c_c$	V_{CE}=(−)10V,I_C=(−)10mA		8		PS
Output Capacitance	c_{ob}	V_{CB}=(−)10V,f=1MHz		(1.7)1.3		pF
Reverse Transfer Capacitance	c_{re}	V_{CB}=(−)10V,f=1MHz		(1.3)1.0		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=(−)20mA,I_B=(−)2mA			(−0.6)0.5	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=(−)10μA,I_E=0	(−)70			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(−)1mA,R_{BE}=∞	(−)60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(−)10μA,I_C=0	(−)4			V

※ : The 2SA1580/2SC4104 are classified by 10mA h_{FE} as follows :

60 3 120	90 4 180	135 5 270

Marking 2SA1580 : QL
2SC4104 : YY

h_{FE} rank : 3,4,5

Package Dimensions 2018A
(unit : mm)