

SANYO

No.3171

2SA1575/2SC4080

PNP/NPN Epitaxial Planar Silicon Transistors

High-Frequency Amp,
Wide-Band Amp Applications**Features**

- High f_T
- High breakdown voltage
- Small reverse transfer capacitance and excellent high-frequency characteristic
- Adoption of FBET process

(): 2SA1575

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

			unit
Collector to Base Voltage	V_{CBO}	(-)200	V
Collector to Emitter Voltage	V_{CEO}	(-)200	V
Emitter to Base Voltage	V_{EBO}	(-)4	V
Collector Current	I_C	(-)100	mA
Collector Current(Pulse)	I_{CP}	(-)200	mA
Collector Dissipation	P_C	500	mW
Mounted on ceramic board ($250\text{mm}^2 \times 0.8\text{mm}$)			
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)150\text{V}, I_E = 0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)2\text{V}, I_C = 0$			(-)1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)10\text{V}, I_C = (-)10\text{mA}$	40*		320*	
	$h_{FE(2)}$	$V_{CE} = (-)10\text{V}, I_C = (-)60\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)30\text{V}, I_C = (-)30\text{mA}$		400		MHz
Output Capacitance	c_{ob}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		(2.3)1.8		pF
Reverse Transfer Capacitance	c_{re}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		(1.7)1.4		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)20\text{mA}, I_B = (-)2\text{mA}$			(-)1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)20\text{mA}, I_B = (-)2\text{mA}$			(-)1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-)200			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-)200			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)100\mu\text{A}, I_C = 0$	(-)4			V

* : The 2SA1575/2SC4080 are classified by 10mA h_{FE} as follows :

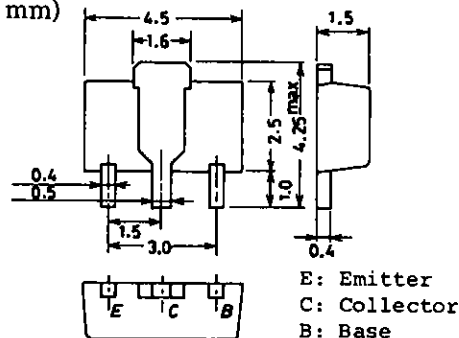
40	C	80	60	D	120	100	E	200	160	F	320
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Marking 2SA1575 : AF

2SC4080 : CI

 h_{FE} rank : C,D,E,F**Package Dimensions 2038**

(unit : mm)



E: Emitter
C: Collector
B: Base

(Bottom View) SANYO: PCP

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