

<b>SANYO</b>	No.3171	<b>2SA1575/2SC4080</b>
	PNP/NPN Epitaxial Planar Silicon Transistors <b>High-Frequency Amp, Wide-Band Amp Applications</b>	

**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 ( $250\text{mm}^2 \times 0.8\text{mm}$ )			1.3 W
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 $\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)2\text{V}, I_C = 0$			(-)	1.0 $\mu\text{A}$
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

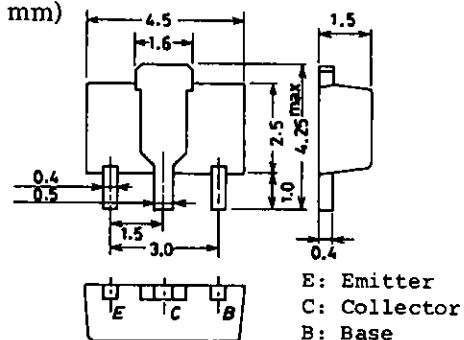
\* : The 2SA1575/2SC4080 are classified by 10mA  $h_{FE}$  as follows :

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)



(Bottom View) SANYO: PCP

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