



汕头华汕电子器件有限公司

NPN SILICON TRANSISTOR

**HC1061**

对应国外型号  
2SC1061

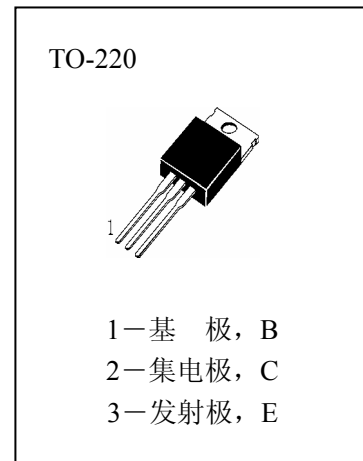
### ■ 主要用途

低频功率放大。

### ■ 极限值 ( $T_a=25^\circ\text{C}$ )

$T_{\text{stg}}$ ——贮存温度	-55~150 $^\circ\text{C}$
$T_j$ ——结温	150 $^\circ\text{C}$
$P_C$ ——集电极耗散功率 ( $T_c=25^\circ\text{C}$ )	25W
$V_{\text{CBO}}$ ——集电极—基极电压	50V
$V_{\text{CEO}}$ ——集电极—发射极电压	50V
$V_{\text{EBO}}$ ——发射极—基极电压	4V
$I_C$ ——集电极电流	3.0A
$I_{\text{CM}}$ ——集电极电流 (峰值)	8A
$I_B$ ——基极电流	0.5A

### ■ 外形图及引脚排列



### ■ 电参数 ( $T_a=25^\circ\text{C}$ )

参数符号	符 号 说 明	最小值	典型值	最大值	单 位	测 试 条 件
$BV_{\text{CEO}}$	集电极—发射极击穿电压	50			V	$I_C=50\text{mA}$ , $I_B=0$
$BV_{\text{CBO}}$	集电极—基极击穿电压	50			V	$I_C=5\text{mA}$ , $I_E=0$
$BV_{\text{EBO}}$	发射极—基极击穿电压	4			V	$I_E=5\text{mA}$ , $I_C=0$
$I_{\text{CBO}}$	集电极—发射极截止电流			100	$\mu\text{A}$	$V_{\text{CB}}=25\text{V}$ , $I_E=0$
$I_{\text{EBO}}$	发射极—基极截止电流			100	$\mu\text{A}$	$V_{\text{EB}}=4\text{V}$ , $I_C=0$
$H_{\text{FE}}(1)$	直流电流增益	35		320		$V_{\text{CE}}=4\text{V}$ , $I_C=1\text{A}$
$H_{\text{FE}}(2)$		35				$V_{\text{CE}}=4\text{V}$ , $I_C=0.1\text{A}$
$V_{\text{CE}}(\text{sat})$	集电极—发射极饱和压降			1.0	V	$I_C=2.0\text{A}$ , $I_B=200\text{mA}$
$V_{\text{BE}}(\text{on})$	基极—发射极导通电压			1.5	V	$V_{\text{CE}}=4\text{V}$ , $I_C=1\text{A}$
$f_T$	特征频率	5			MHz	$V_{\text{CE}}=4\text{V}$ , $I_C=0.5\text{A}$ , $f=1\text{MHz}$

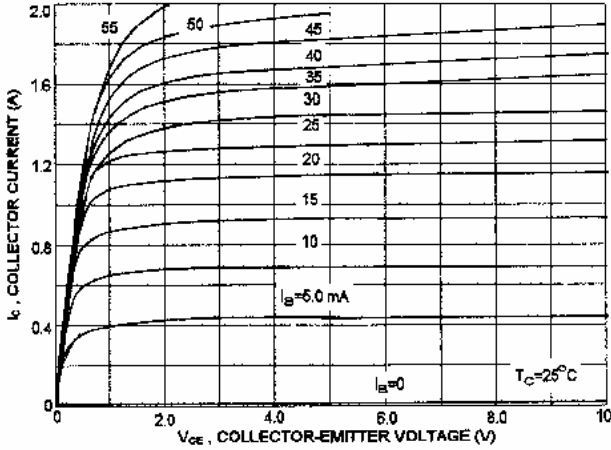
### ■ 分档及其标志

A	B	C	D
35—70	60—120	100—200	160—320

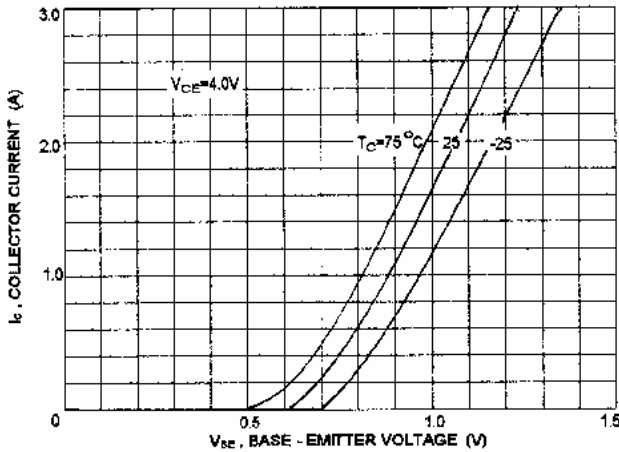


■ 特性曲线

$I_c - V_{ce}$



$I_c - V_{be}$



DC CURRENT GAIN

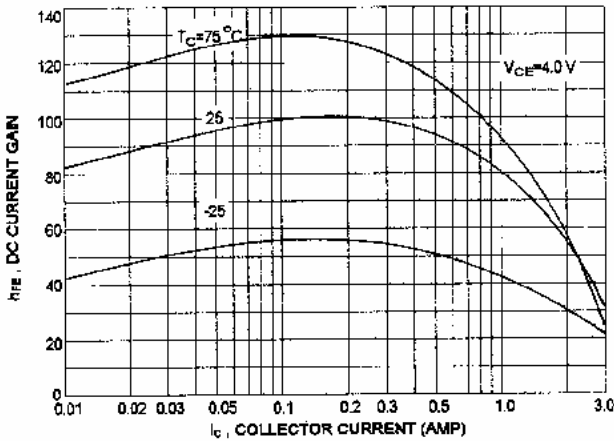
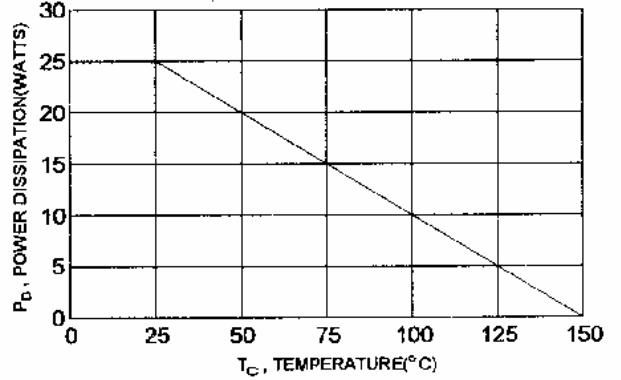
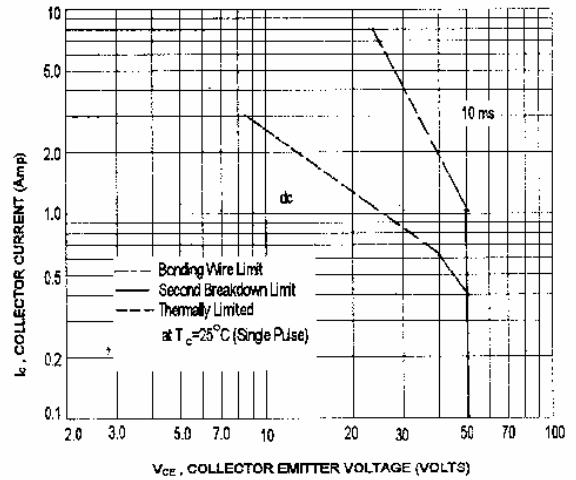


FIGURE -1 POWER DERATING



ACTIVE-REGION SAFE OPERATING AREA (SOA)



There are two limitation on the power handling ability of a transistor: average junction temperature and second breakdown safe operating area curves indicate  $I_c - V_{ce}$  limits of the transistor that must be observed for reliable operation i.e., the transistor must not be subjected to greater dissipation than curves indicate.

The data of SOA curve is base on  $T_{j(PK)} = 150^\circ\text{C}$ ;  $T_c$  is variable depending on conditions. second breakdown pulse limits are valid for duty cycles to 10% provided  $T_{j(PK)} \leq 150^\circ\text{C}$ . At high case temperatures, thermal limitation will reduce the power that can be handled to values less than the limitations imposed by second breakdown.