

<b>SANYO</b>	No.550F	<b>2SD879</b>
		NPN Epitaxial Planar Silicon Transistor
<b>1.5V, 3V Strobe Applications</b>		

### Applications

- In applications where two NiCd batteries are used to provide 2.4V, two 2SD879s are used.
- The charge time is approximately 1 second faster than that of germanium transistors.
- Less power dissipation because of low Collector-to-Emitter Voltage  $V_{CE(sat)}$ , permitting more flashes of light to be emitted.
- Small package and large allowable collector dissipation (TO-92, PC = 750mW).
- Large current capacity and highly resistant to breakdown.
- Excellent linearity of  $h_{FE}$  in the region from low current to high current.

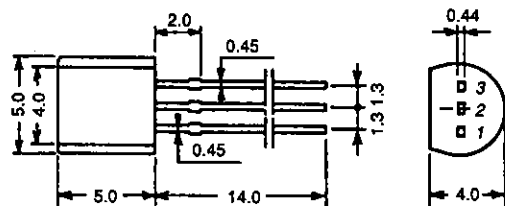
### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit
Collector-to-Base Voltage	$V_{CBO}$	30	V
Collector-to-Emitter Voltage	$V_{CEX}$	20	V
Collector-to-Emitter Voltage	$V_{CEO}$	10	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	3	A
Collector Current (Pulse)	$I_{CP}$	5	A
Collector Dissipation	$P_C$	750	mW
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	$I_{CBO}$	$V_{CB} = 20\text{V}, I_E = 0$			1.0	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$			1.0	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 2\text{V}, I_C = 3\text{A}$ (pulse)	140	210		
Gain-Bandwidth Product	$f_T$	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$		200		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		30		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 3\text{A}, I_B = 60\text{mA}$ (pulse)		0.3	0.4	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	30			V
C-E Breakdown Voltage	$V_{(BR)CEX}$	$I_C = 1\text{mA}, V_{BE} = 3\text{V}$	20			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	10			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	6			V

### Package Dimensions 2003B (unit : mm)

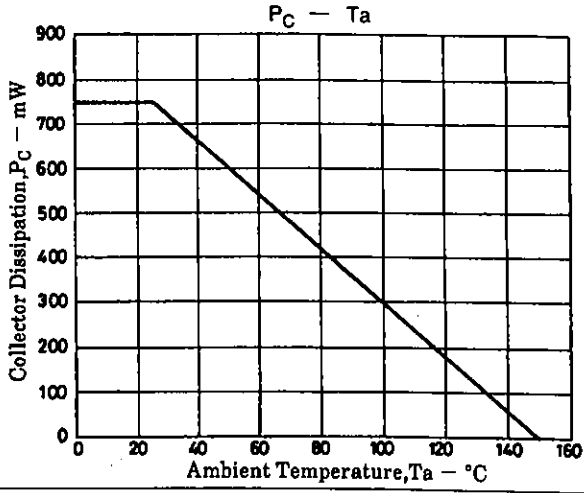
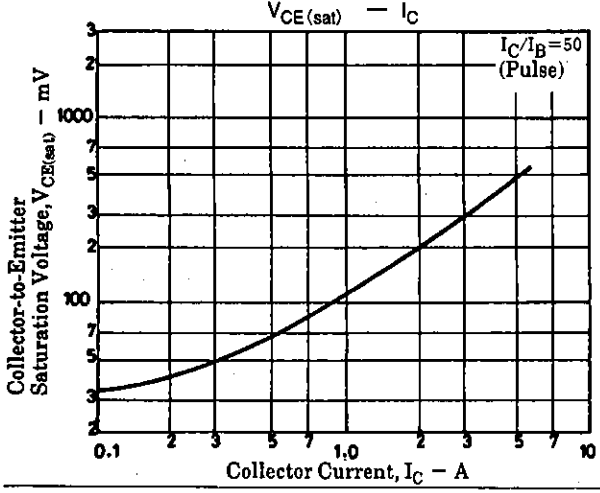
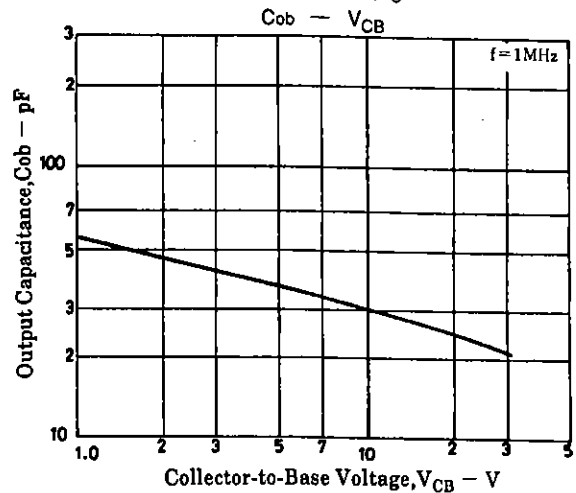
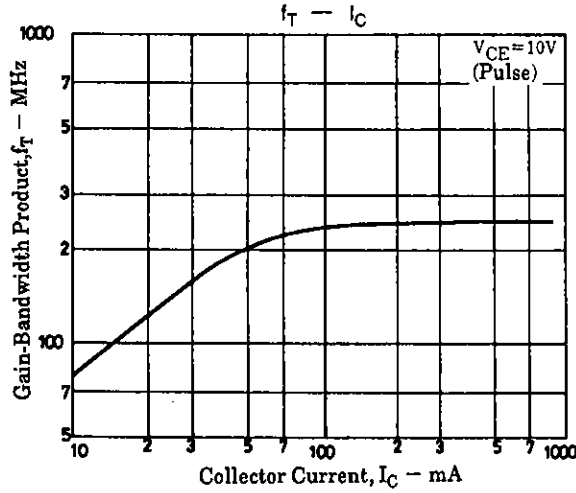
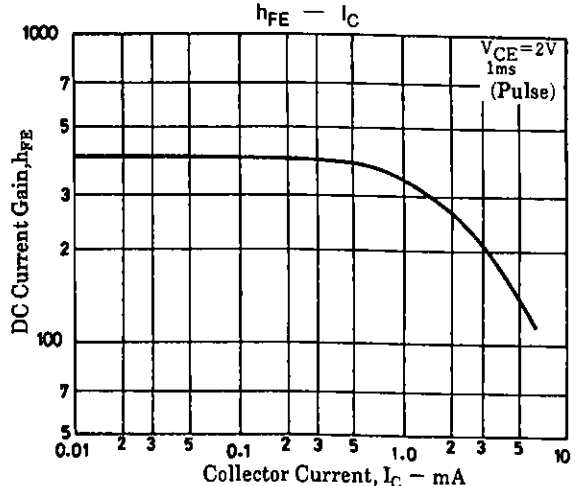
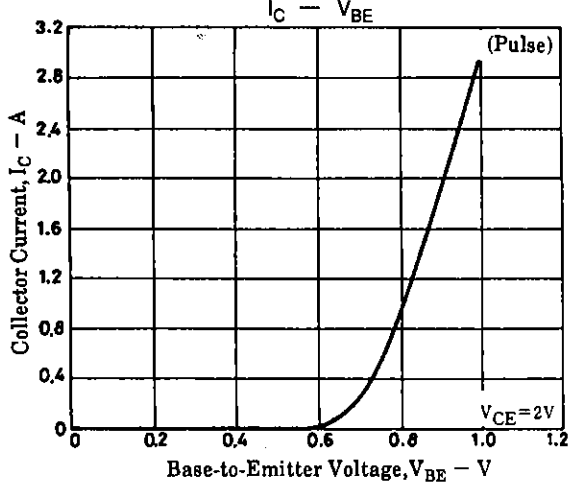
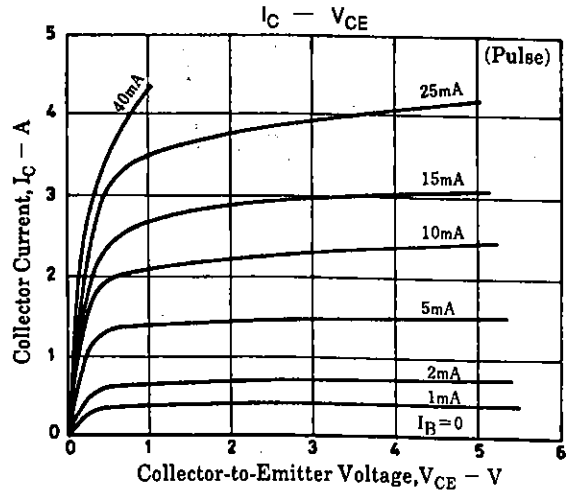
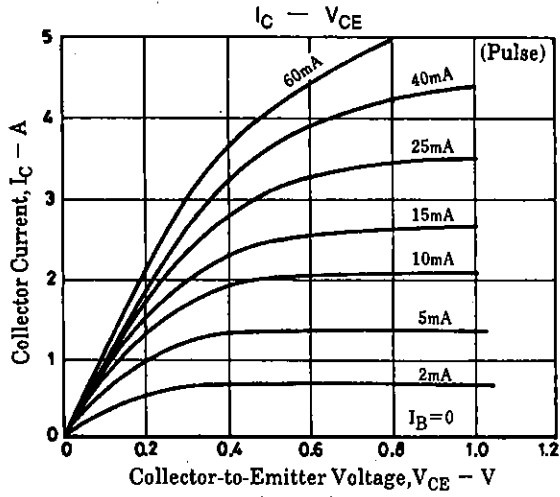


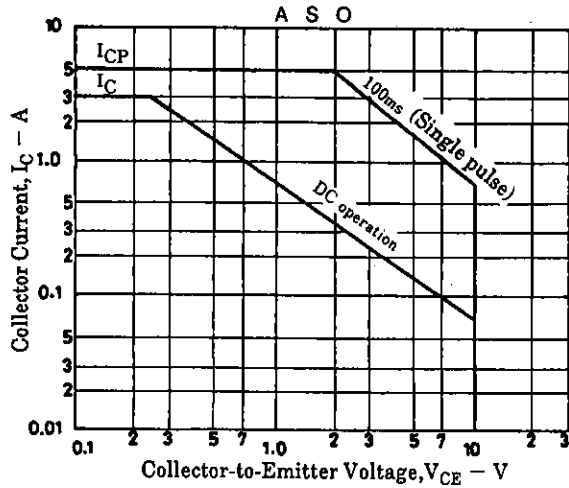
JEDEC : TO-92  
EIAJ : SC-43  
SANYO : NP

1. Emitter  
2. Collector  
3. Base

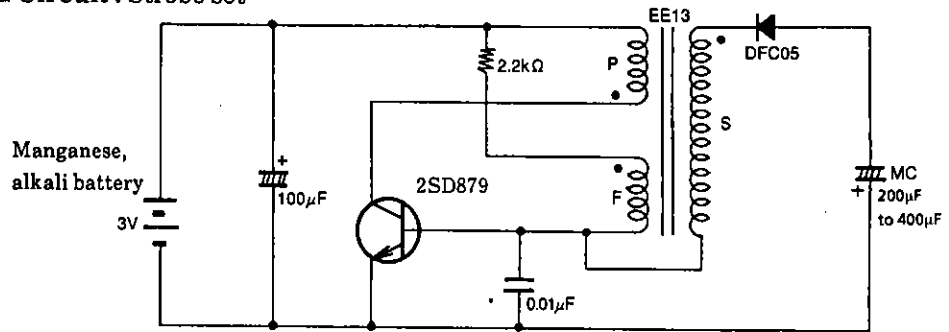
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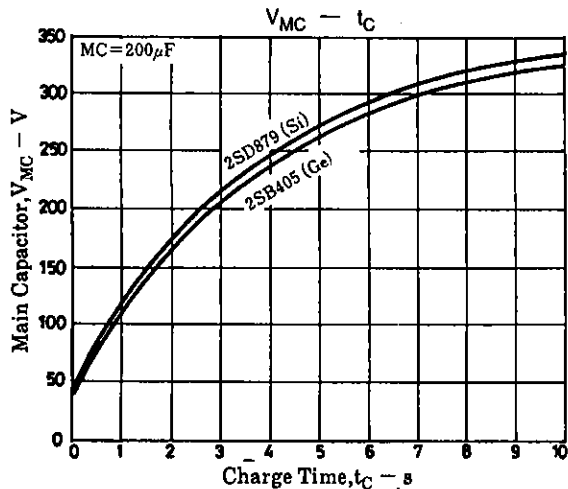
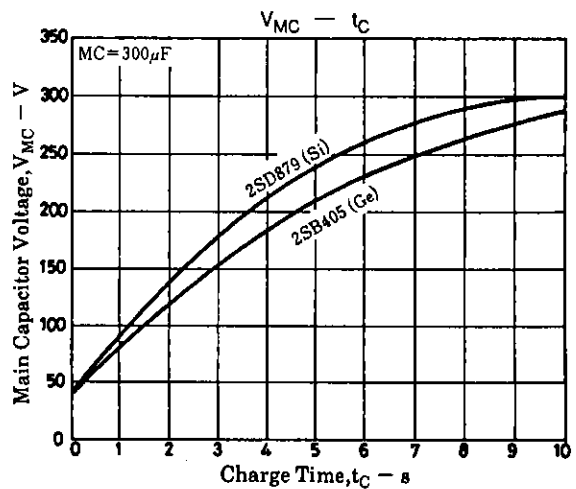
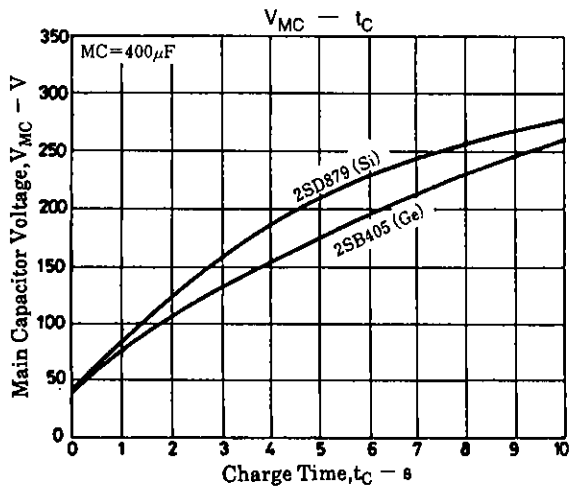


Sample Application Circuit : Strobe set



Core : EE13  
(Kijima Wireless)

Number of turns specified for transformer P :  $0.55 \phi \times 10 \frac{3}{4} T$ , S :  $0.07 \phi \times 1350 T$   
F :  $0.23 \phi \times 12 \frac{3}{4} T$



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