

/ Descriptions

TO-92 NPN Silicon NPN transistor in a TO-92 Plastic Package.

/ Features

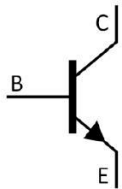
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The charge time is approximately 1 second , low $V_{CE(sat)}$ and less power dissipation large current capacity, excellent linearity of h_{FE} .

/ Applications

Strobe applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions.

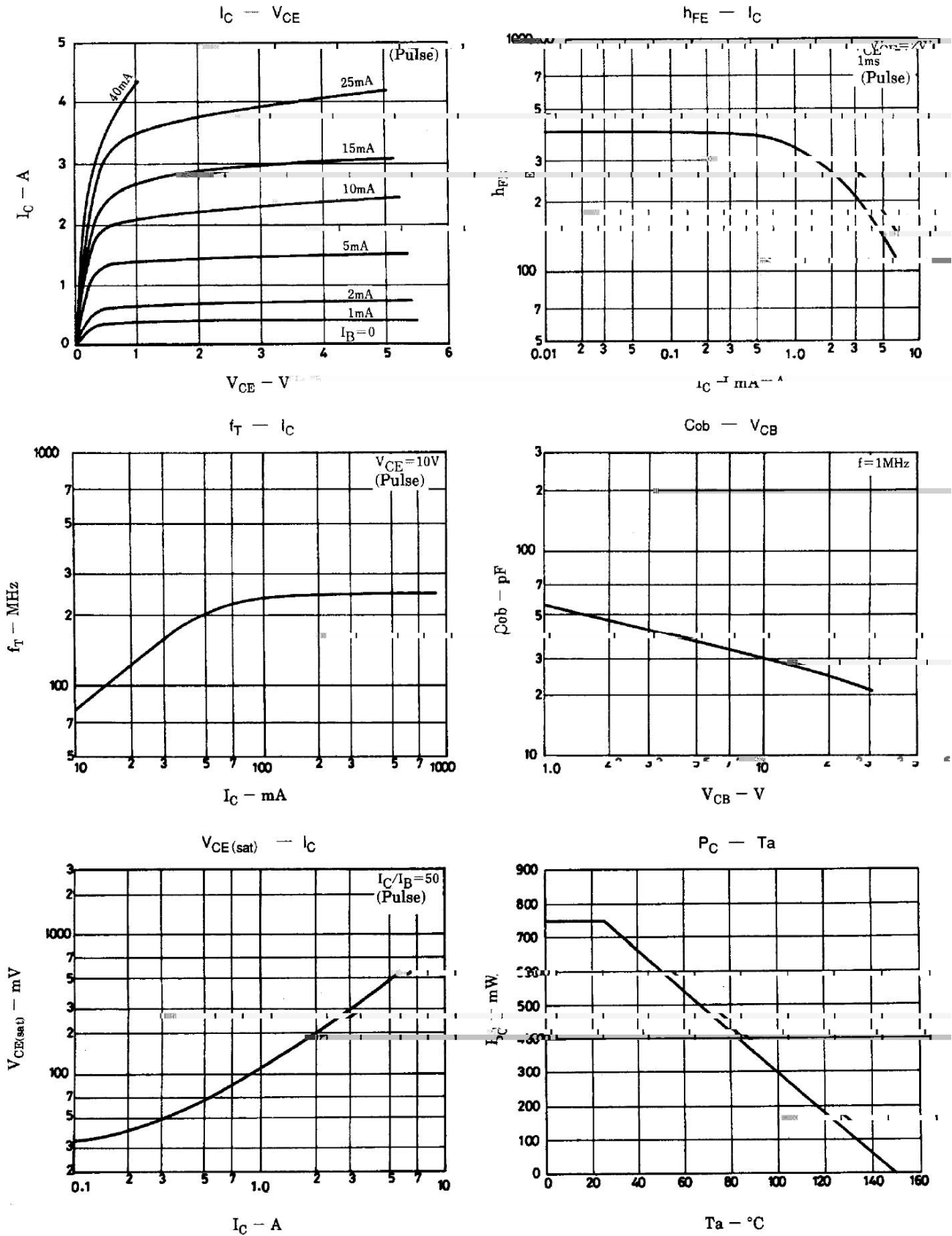
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	10	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Current – Continuous(Pulse)	I_{CP}	5.0	A
Collector Power Dissipation	P_C	750	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu A$ $I_E=0$	30			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	10			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20V$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=2.0V$ $I_C=3.0A$	140	210		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3.0A$ $I_B=60mA$		0.3	0.4	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=50mA$		200		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$		30		pF

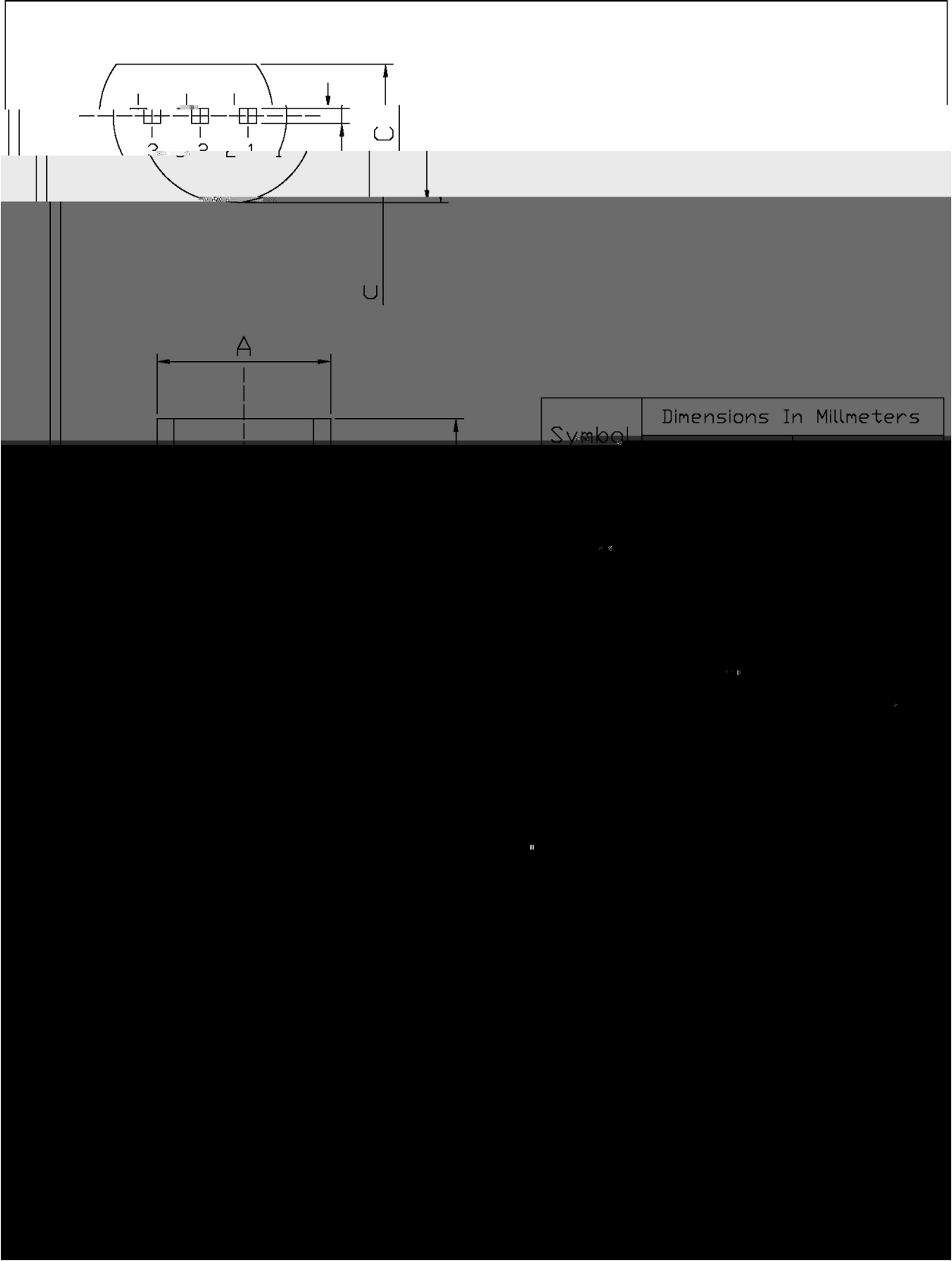
I Electrical Characteristic Curve



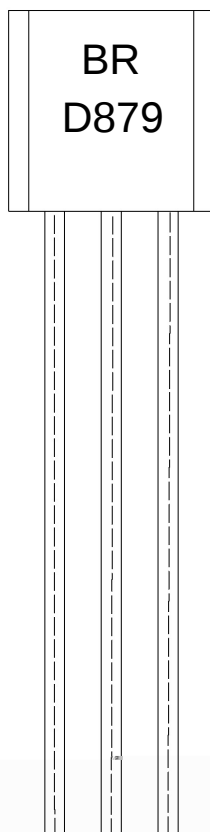
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



BR:

D879

Note:

BR: Company Code.

D879: Product Type.

****: Lot No. Code,code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|---|--------------------------------------|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. | |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	只袋	袋盒	只盒	盒箱	只箱	袋	盒	箱

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	只纸带	纸带盒	纸带层盒	盒箱	只箱	盒	箱
							小箱 , 大箱

/ Notices