

SANYO

No.751C

2SD1111

NPN Epitaxial Planar Silicon Darlington Transistor

Driver Applications

Applications

- . Motor drivers, printer hammer drivers, relay drivers, voltage regulator control

Features

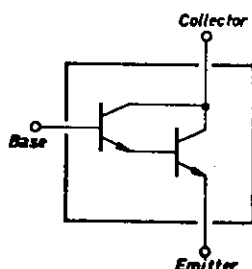
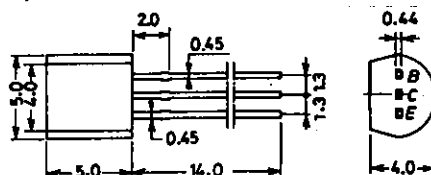
- . High DC current gain (5000 or greater).
- . Large current capacity and wide ASO.
- . Low saturation voltage ($V_{CE(sat)}=0.8V$ typ).

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

			unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	10	V
Collector Current	I_C	0.7	A
Collector Current(Pulse)	I_{CP}	2	A
Collector Dissipation	P_C	600	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

		min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB}=40V, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO} $V_{EB}=8V, I_C=0$			0.1	μA
DC Current Gain	$h_{FE}(1)$ $V_{CE}=2V, I_C=50mA$	5000			
	$h_{FE}(2)$ $V_{CE}=2V, I_C=500mA$	4000			
Gain-Bandwidth Product	f_T $V_{CE}=5V, I_C=50mA$		200		MHz
Output Capacitance	c_{ob} $V_{CB}=10V, f=1MHz$		10		pF
C-E Saturation Voltage	$V_{CE(sat)}$ $I_C=100mA, I_B=0.1mA$	0.8	1.2		V
B-E Saturation Voltage	$V_{BE(sat)}$ $I_C=100mA, I_B=0.1mA$	1.3	2.0		V
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C=10\mu A, I_E=0$	80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C=1mA, R_{BE}=\infty$	50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$ $I_E=10\mu A, I_C=0$	10			V

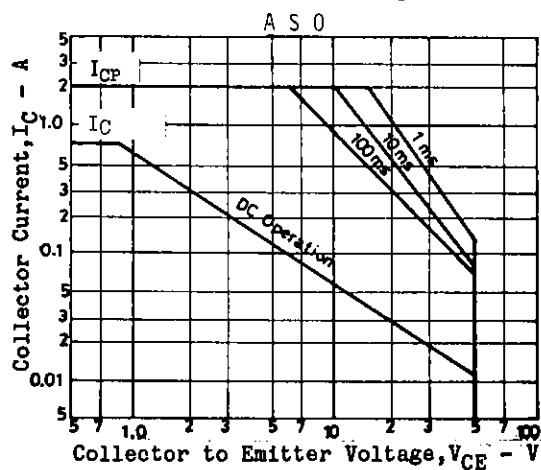
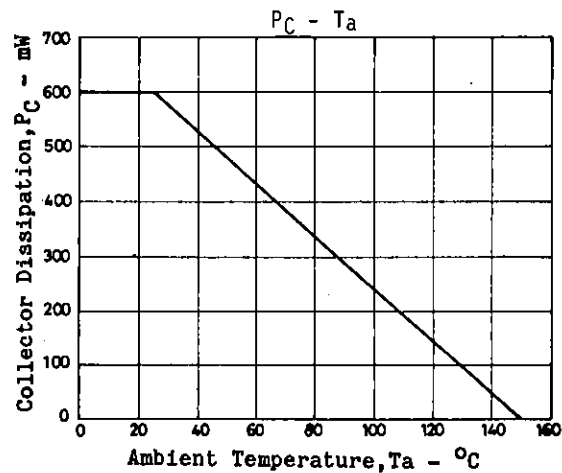
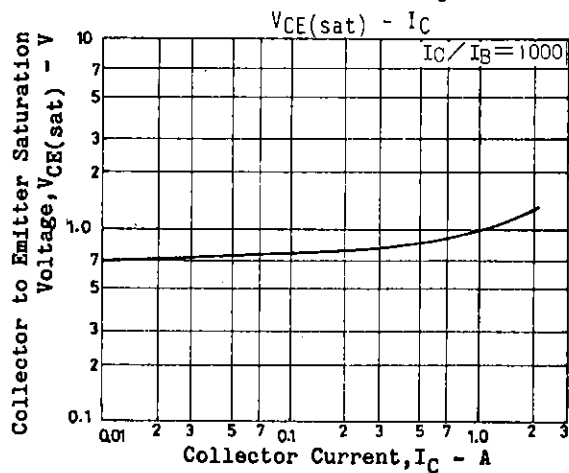
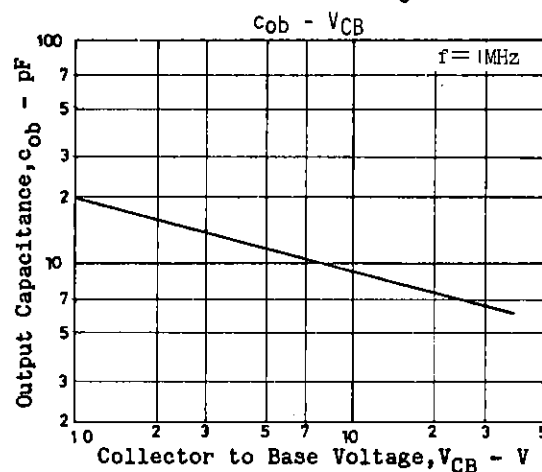
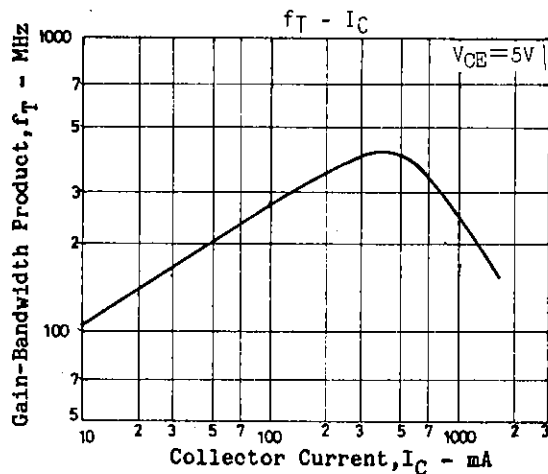
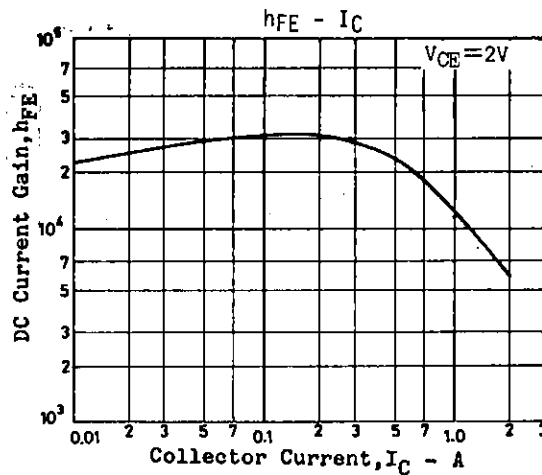
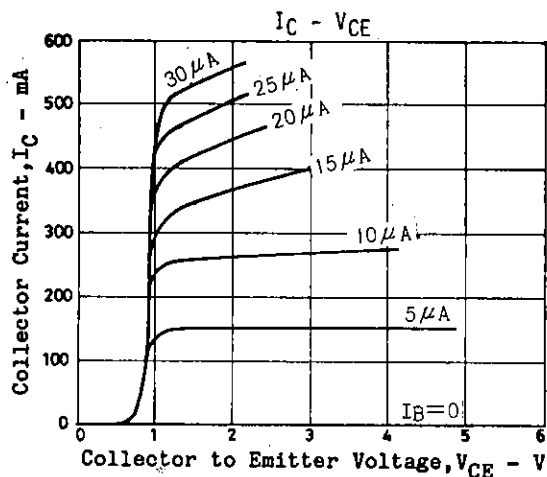
Electrical Connection**Package Dimensions 2003A**
(unit: mm)

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

B. Base
C. Collector
E. Emitter

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