

SANYO	No.2506	2SD1853
	NPN Epitaxial Planar Silicon Darlington Transistor	
Driver Applications		

Applications

Motor drivers, hammer drivers, relay drivers

Features

- . High DC current gain
- . Low saturation voltage

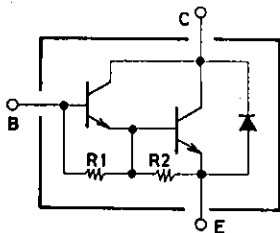
Absolute Maximum Ratings at Ta=25°C

Collector to Base Voltage	V_{CB0}	80		unit	
Collector to Emitter Voltage	V_{CEO}	60		V	
Emitter to Base Voltage	V_{EBO}	6		V	
Collector Current	I_C	1.5		A	
Collector Current(Pulse)	I_{CP}	3		A	
Collector Dissipation	P_C	0.7		W	
Junction Temperature	T_J	150		°C	
Storage Temperature	T_{stg}	-55 to +150		°C	

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=60V, I_E=0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$			2.5	mA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=2V, I_C=0.5A$	1000			
	$h_{FE}(2)$	$V_{CE}=2V, I_C=1A$	2000			
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=1A, I_B=2mA$			1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=1A, I_B=2mA$			2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=25mA, R_{BE}=\infty$	60			V

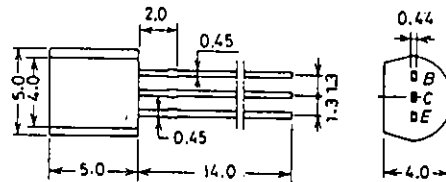
Electrical Connection



$R1 \approx 5k\Omega$
 $R2 \approx 500\Omega$

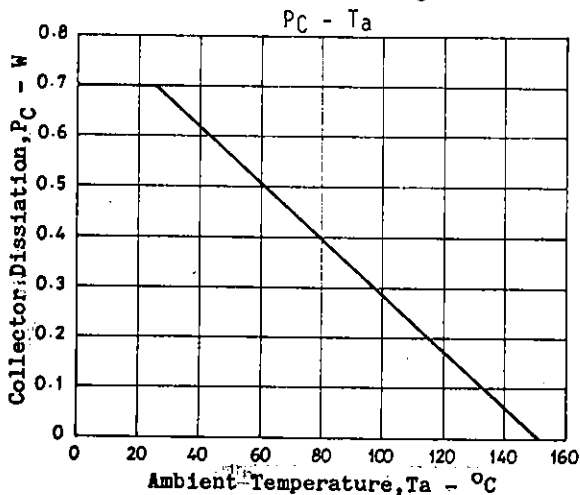
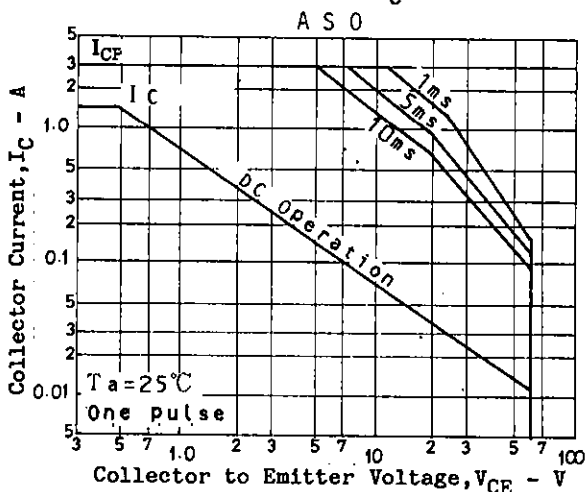
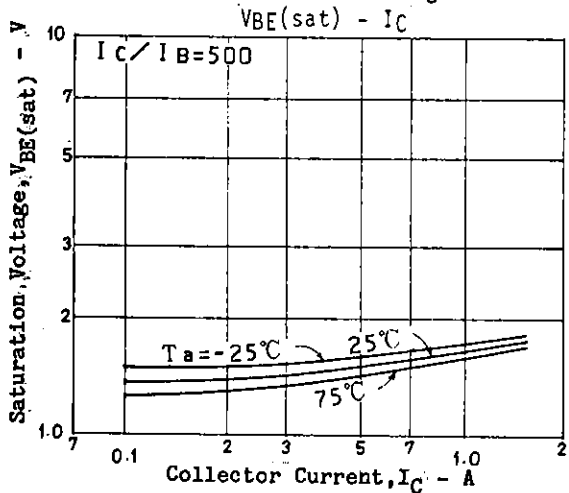
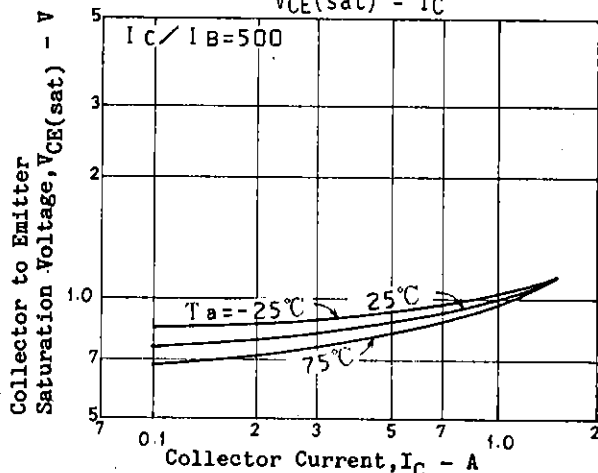
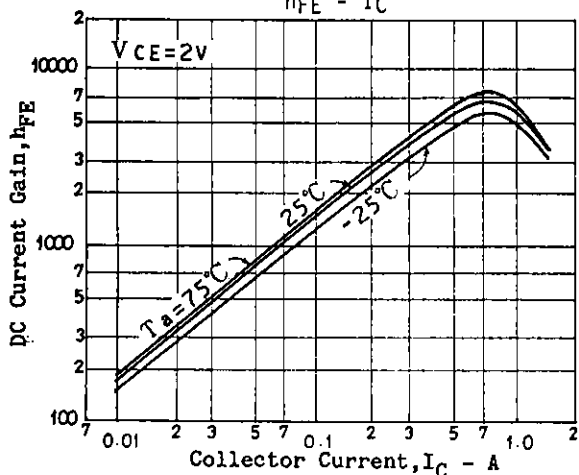
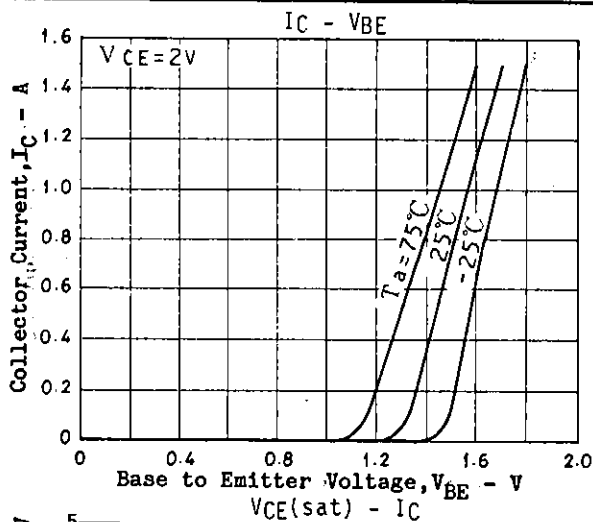
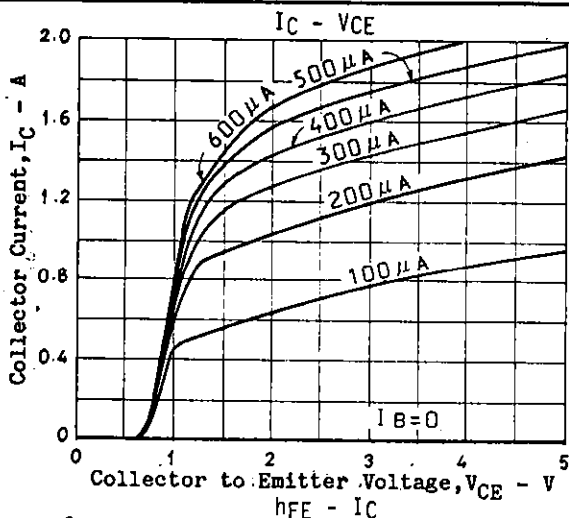
Package Dimensions 2003A

(unit: mm)



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

B. Base
 C. Collector
 E. Emitter



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