

<b>SANYO</b>	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

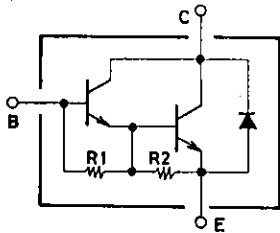
**Absolute Maximum Ratings at Ta=25°C**

Collector to Base Voltage	$V_{CB0}$	80	V	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	$\mu A$
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

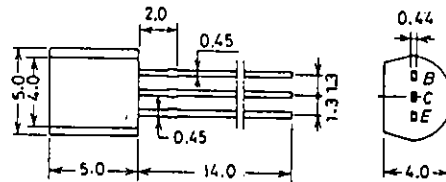
**Electrical Connection**



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

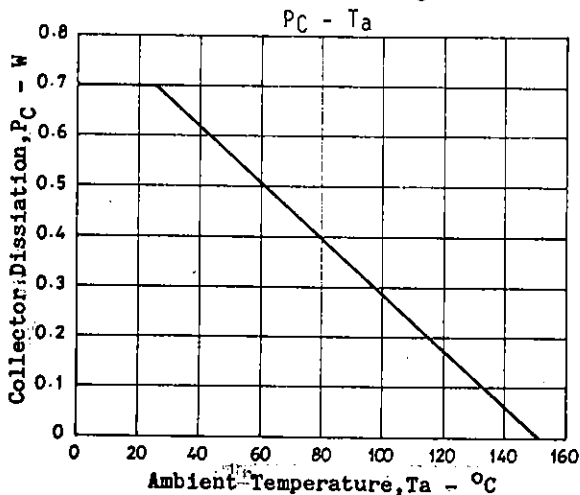
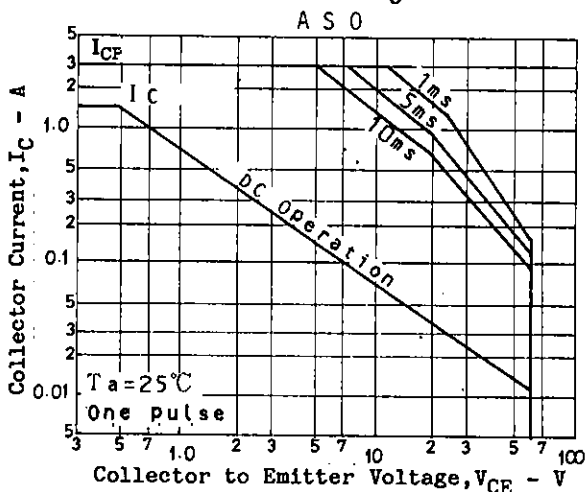
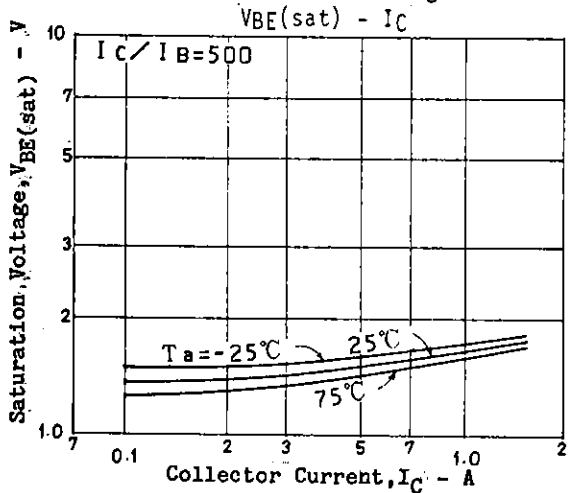
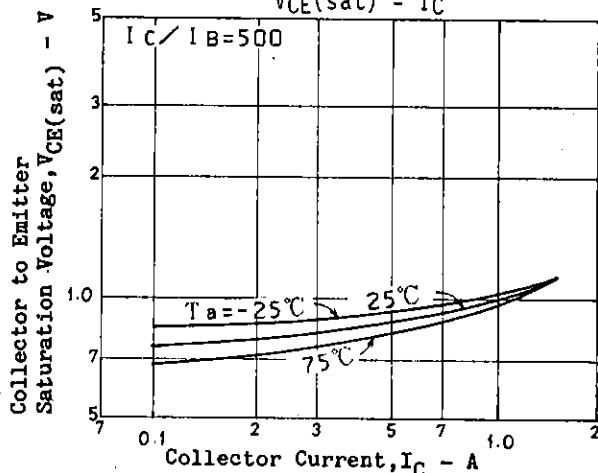
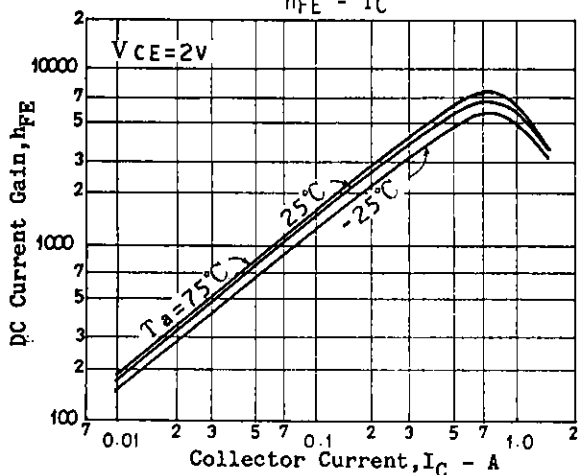
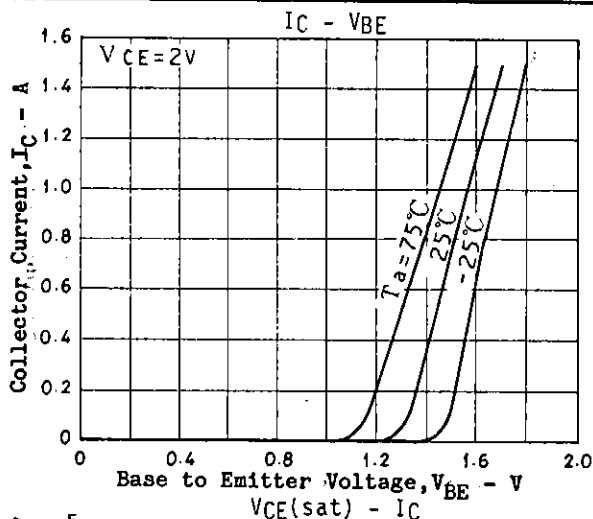
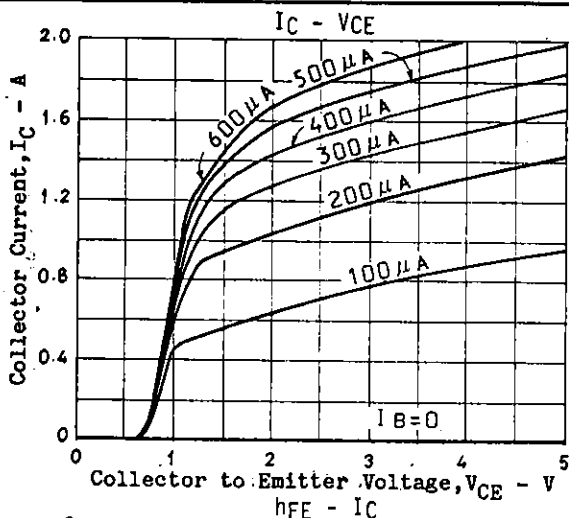
**Package Dimensions 2003A**

(unit: mm)



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

B. Base  
 C. Collector  
 E. Emitter



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