

**DESCRIPTION**

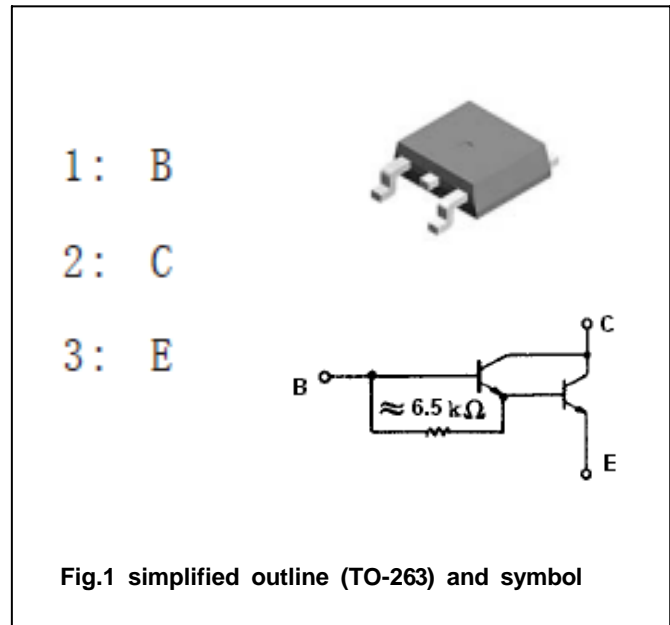
- With TO-263 package
- High DC current gain
- DARLINGTON

**APPLICATIONS**

- For switching igniter applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	300	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	250	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current-continuous		6	A
I <sub>CM</sub>	Collector current-peak		10	A
I <sub>B</sub>	Base current		1	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25°C	65	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

# YR973

## Silicon NPN Power Transistors

### CHARACTERISTICS

$T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.5A ; L=40mH$	250			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=4A ; I_B=0.04A$			2.0	V
$V_{BEsat}$	Base-emitter saturation voltage	$I_C=4A ; I_B=0.04A$			2.5	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=300V ; I_E=0$			0.5	mA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			0.5	mA
$h_{FE-1}$	DC current gain	$I_C=2A ; V_{CE}=2V$	2000			
$h_{FE-2}$	DC current gain	$I_C=4A ; V_{CE}=2V$	200			
$C_{OB}$	Collector output capacitance	$f=1MHz ; V_{CB}=50V$		35		pF

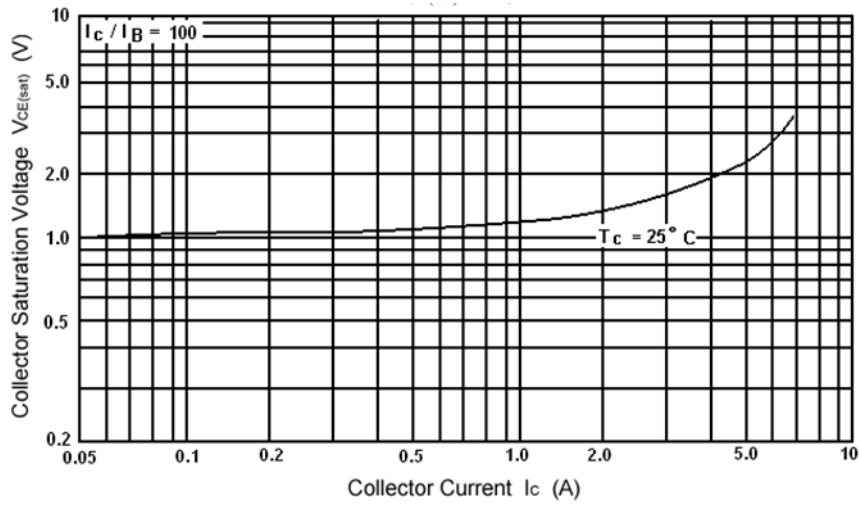


Fig.3 Collector-Emitter Saturation Voltage

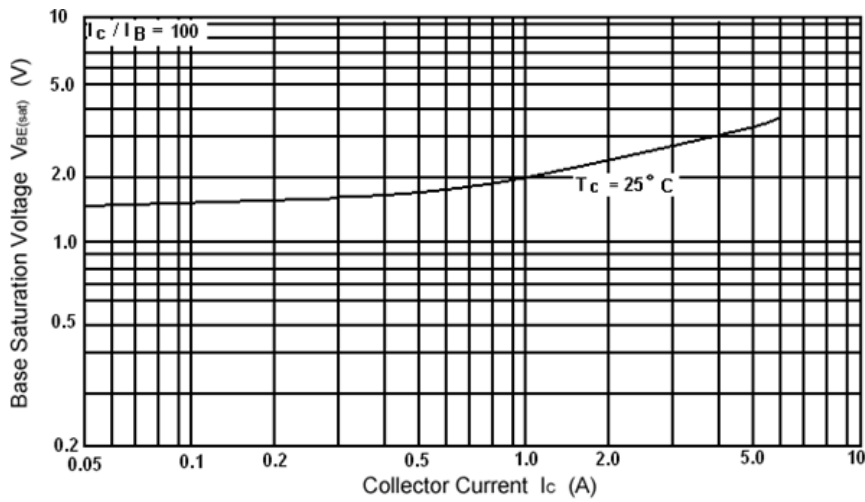


Fig.4 Base-Emitter Saturation Voltage

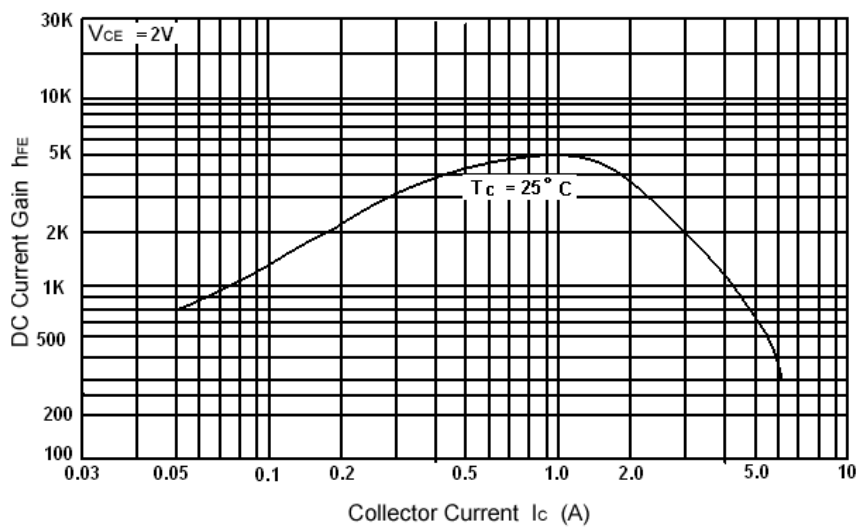
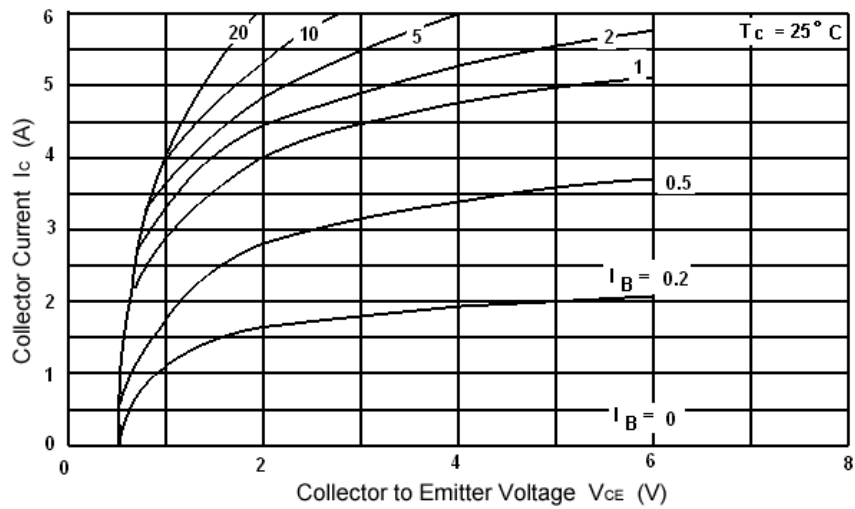
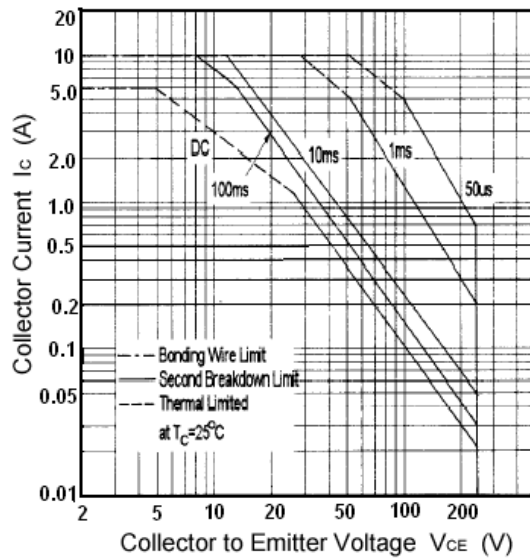


Fig.5 DC current Gain

# YR973 Silicon NPN Power Transistors



**Fig.6 Static Characteristic**



**Fig.7 Safe Operating Area**