

Silicon PNP Power Transistors

2SB727K

DESCRIPTION

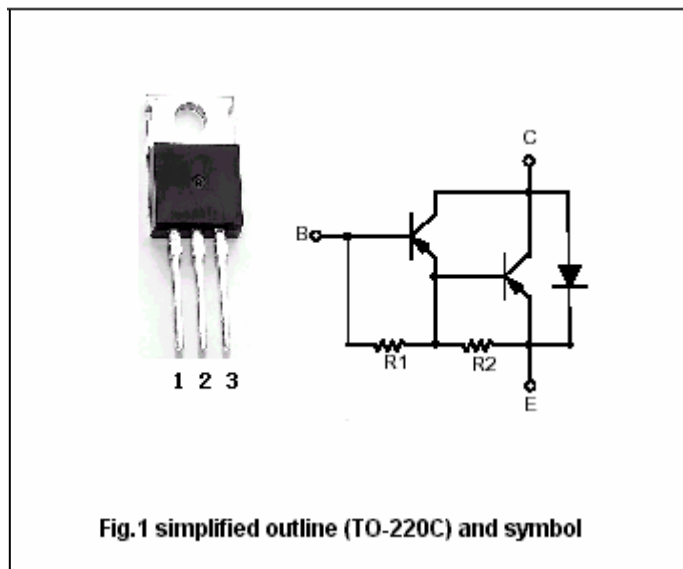
- With TO-220C package
- Complement to type 2SD768K
- DARLINGTON

APPLICATIONS

- For medium speed and power switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-6	A
I_{CM}	Collector current-peak		-10	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -25mA, R_{BE} = \infty$	-120			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -50mA, I_C = 0$	-7			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C = -3A, I_B = -6mA$			-1.5	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C = -6A, I_B = -60mA$			-3.0	V
$V_{BEsat-1}$	Base-emitter saturation voltage	$I_C = -3A, I_B = -6mA$			-2.0	V
$V_{BEsat-2}$	Base-emitter saturation voltage	$I_C = -6A, I_B = -60mA$			-3.5	V
I_{CBO}	Collector cut-off current	$V_{CB} = -120V, I_E = 0$			-100	μA
I_{CEO}	Collector cut-off current	$V_{CE} = -100V, R_{BE} = \infty$			-10	μA
h_{FE}	DC current gain	$I_C = -3A; V_{CE} = -3V$	1000		20000	

Switching times

t_{on}	Turn-on time	$I_C = -3A, I_{B1} = -I_{B2} = -6mA$		1.0		μs
t_{off}	Turn-off time			3.0		μs

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PACKAGE OUTLINE

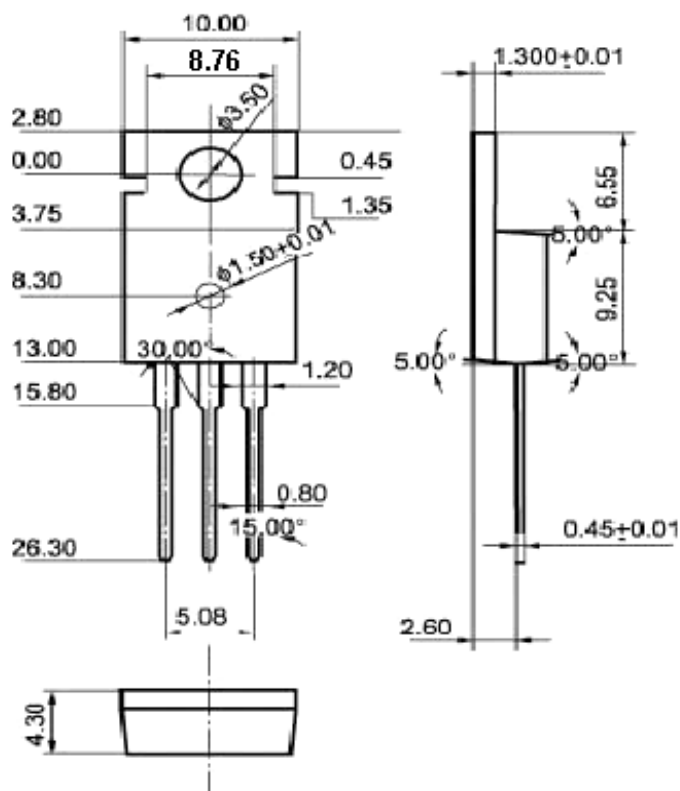


Fig.2 Outline dimensions

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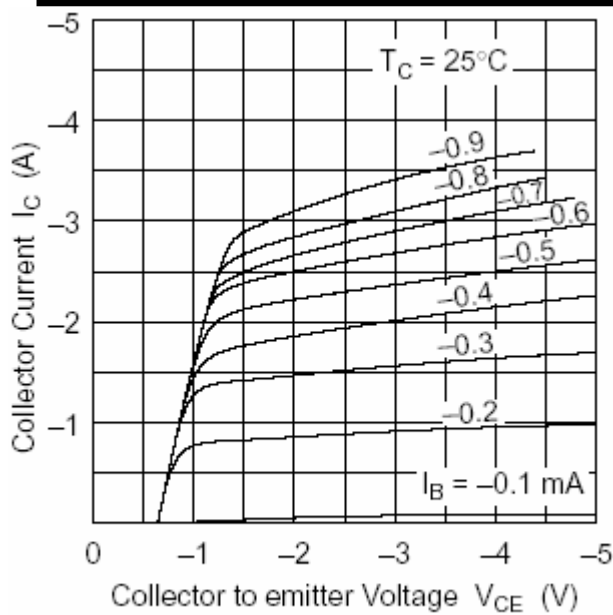


Fig.3 Static Characteristic

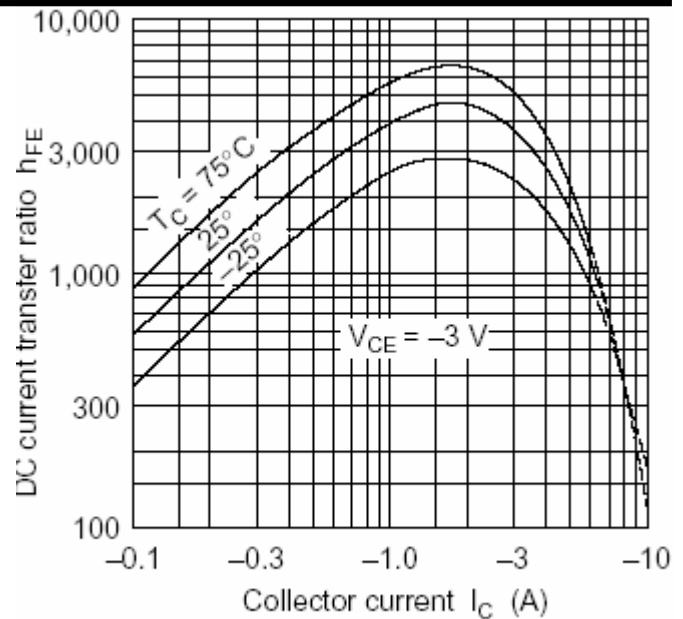


Fig.4 DC current Gain

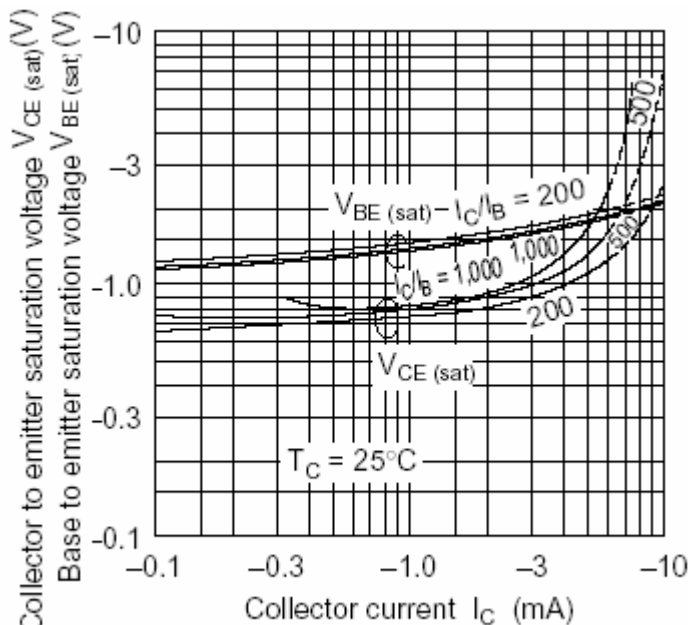


Fig.5 Collector-Emitter Saturation Voltage

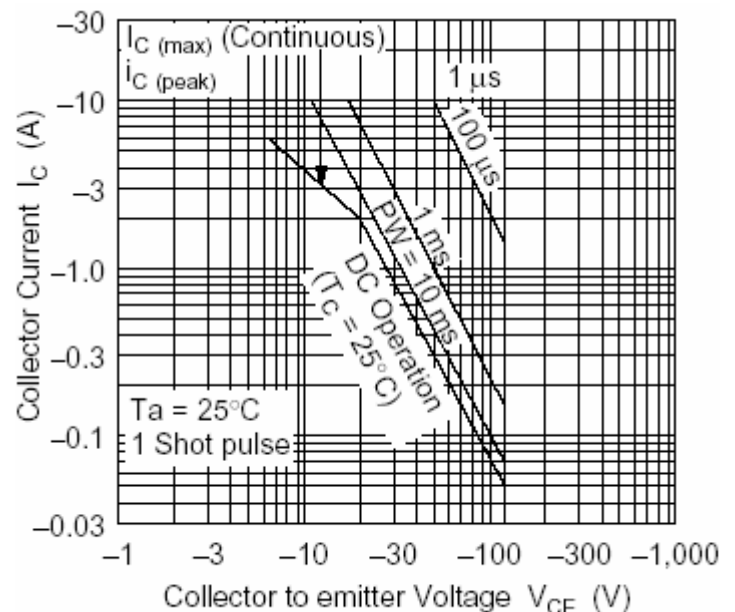


Fig.6 Safe Operating Area