

Silicon NPN Power Transistors

2SC4747

**DESCRIPTION**

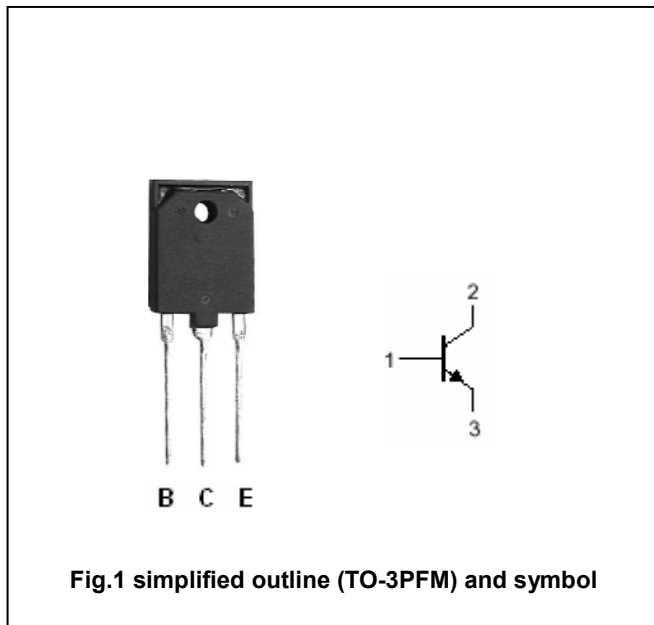
- With TO-3PFM package
- High speed switching
- High breakdown voltage

**APPLICATIONS**

- Character display horizontal deflection output applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	1500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	800	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		10	A
I <sub>C(surge)</sub>	Collector current-surge		20	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	50	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-55~150	□

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## CHARACTERISTICS

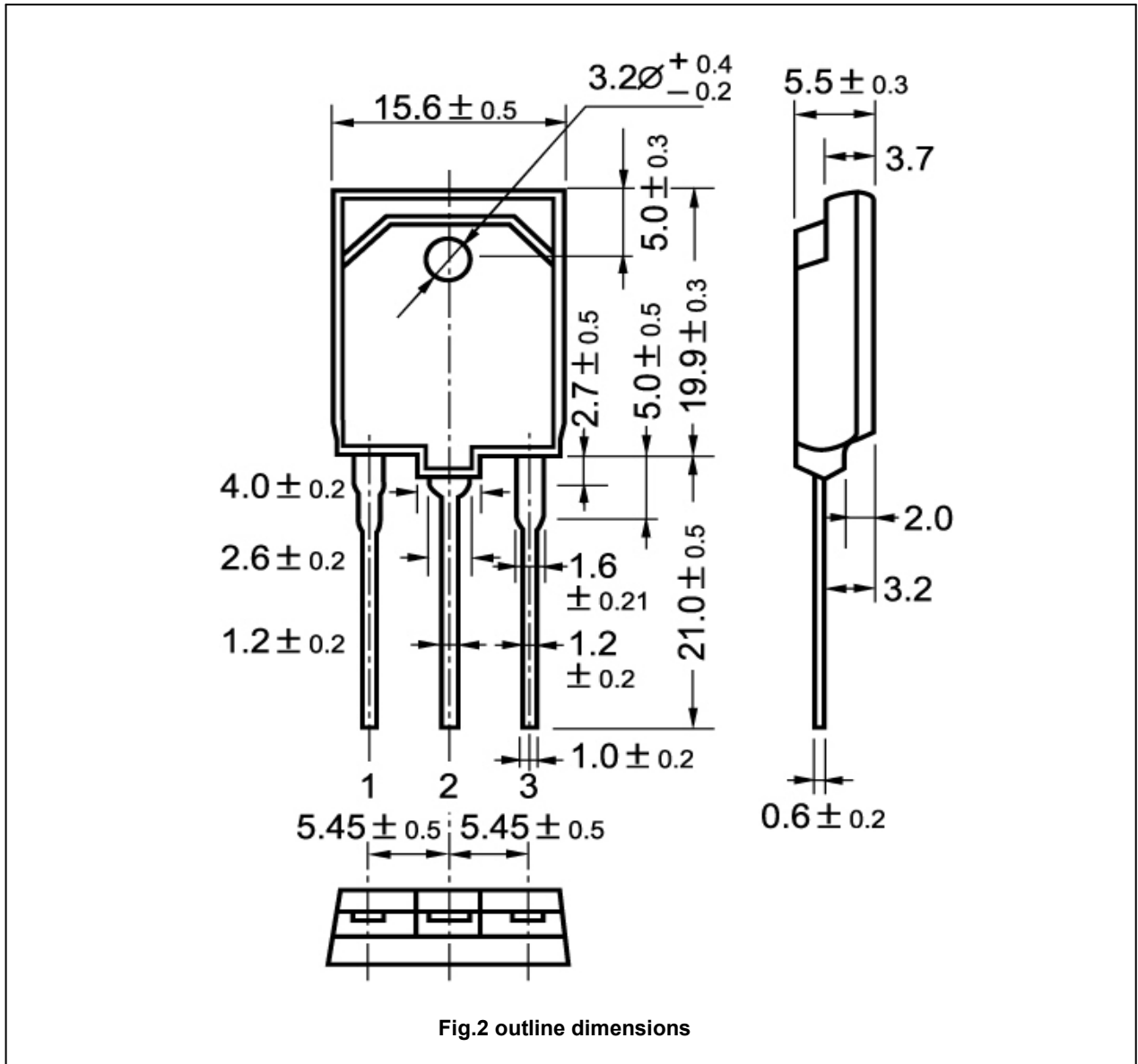
 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10\text{mA}; R_{BE}=0$	800			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\text{mA}; I_C=0$	6			V
$I_{CES}$	Collector cut-off current	$V_{CE}=1500\text{V}; R_{BE}=0$			0.5	mA
$h_{FE}$	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8		30	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=8\text{A}; I_B=1.6\text{A}$			1.5	V
$t_f$	Fall time	$I_{CP}=7\text{A}; I_{B1}=1.4\text{A}$			0.3	$\mu\text{s}$

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PACKAGE OUTLINE



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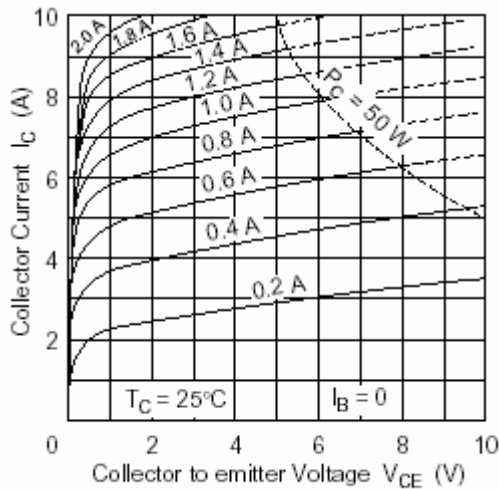


Fig.3 Static Characteristic

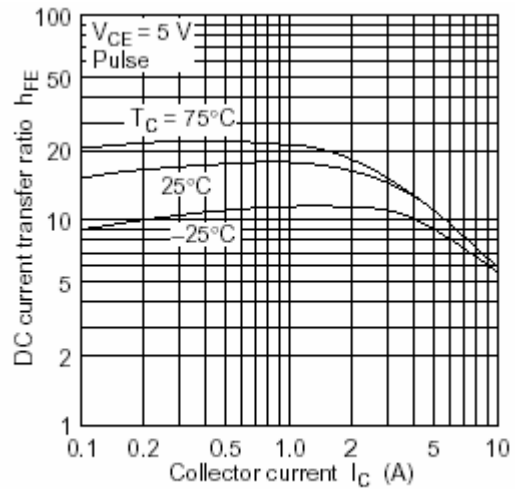


Fig.4 DC current Gain

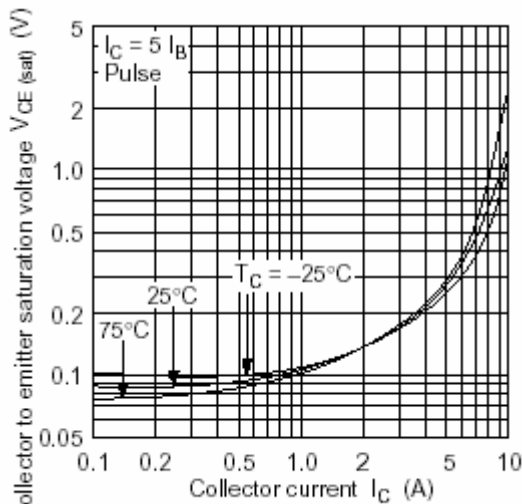


Fig.5 Collector-Emitter Saturation Voltage

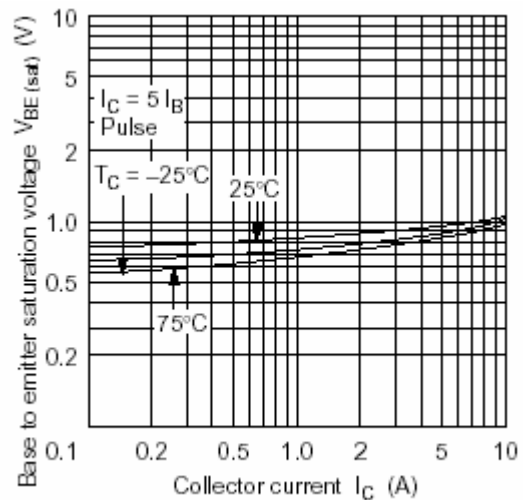


Fig.6 Base-Emitter Saturation Voltage

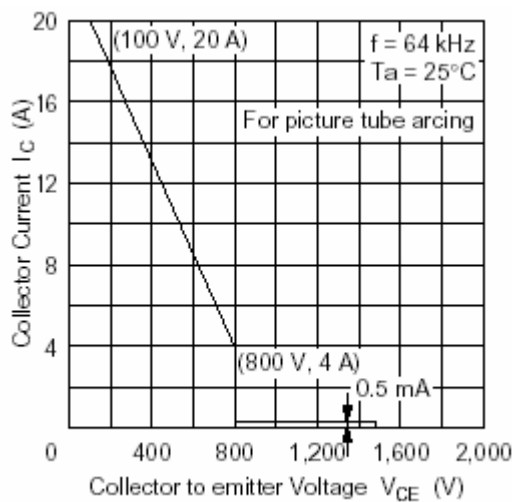


Fig.7 Safe Operating Area