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# 2SC4927

Silicon NPN Triple Diffused

# HITACHI

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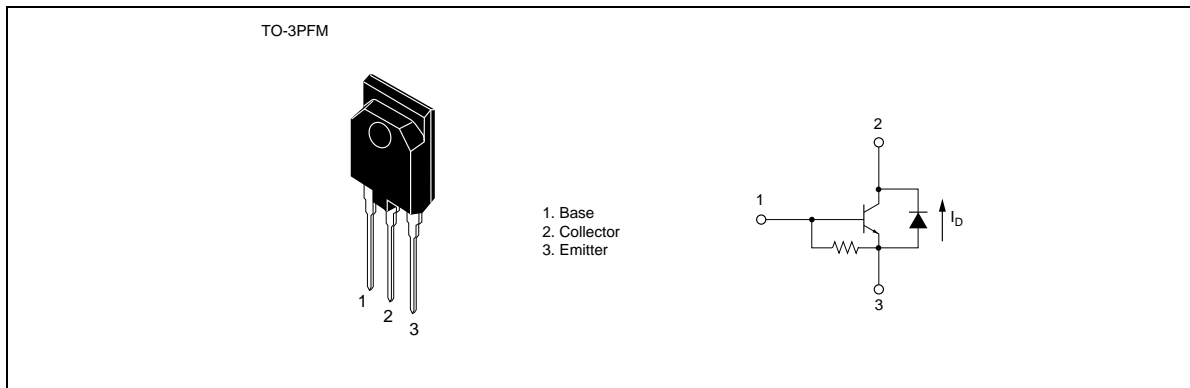
## Application

TV/character display horizontal deflection output

## Features

- High breakdown voltage  
 $V_{CES} = 1500 \text{ V}$
- Built-in damper diode type
- Isolated package  
TO-3PFM

## Outline



## 2SC4927

### Absolute Maximum Ratings (Ta = 25°C)

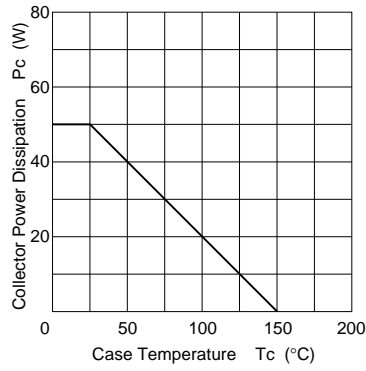
Item	Symbol	Ratings	Unit
Collector to emitter voltage	$V_{CES}$	1500	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	8	A
Collector peak current	$I_{C(peak)}$	9	A
Collector surge current	$I_{C(surge)}$	18	A
Collector power dissipation	$P_C^{*1}$	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C
C to E diode forward current	$I_D$	8	A

Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

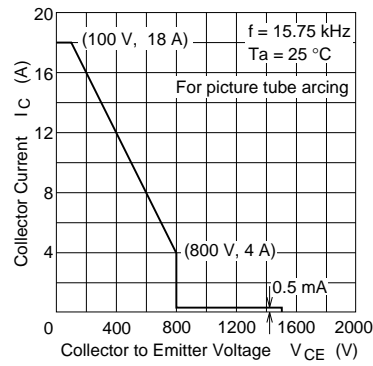
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 500\text{ mA}, I_C = 0$
Collector cutoff current	$I_{CES}$	—	—	500	$\mu\text{A}$	$V_{CE} = 1500\text{ V}, R_{BE} = 0$
DC current transfer ratio	$h_{FE}$	—	—	25	—	$V_{CE} = 5\text{ V}, I_C = 1\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 6\text{ A}, I_B = 1.2\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 6\text{ A}, I_B = 1.2\text{ A}$
C to E diode forward voltage	$V_{ECF}$	—	—	2.0	V	$I_F = 8\text{ A}$
Fall time	$t_f$	—	—	0.5	$\mu\text{s}$	$I_{CP} = 6\text{ A}, I_{B1} = 1.2\text{ A}, I_{B2} \cong -2.4\text{ A}, f_H = 31.5\text{ kHz}$

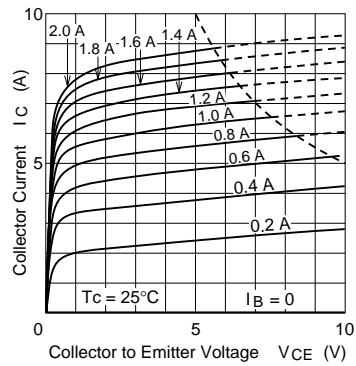
Maximum Collector Power Dissipation Curve



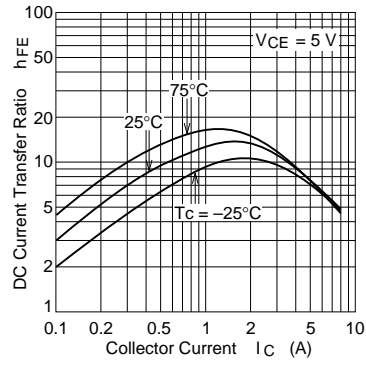
Area of Safe Operation



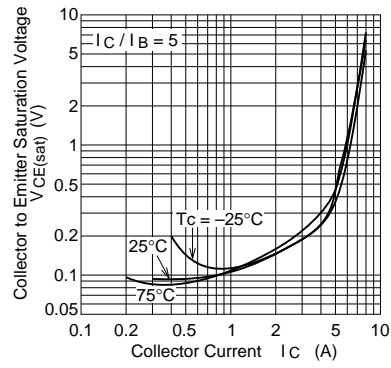
Typical Output Characteristics



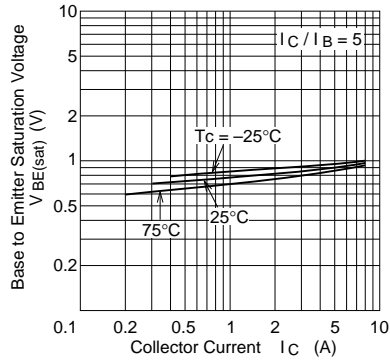
DC Current Transfer Ratio  
vs. Collector Current



Collector to Emitter Saturation Voltage  
vs. Collector Current



Base to Emitter Saturation Voltage  
vs. Collector Current



Collector to Emitter Saturation Voltage  
vs. Base Current

