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# 2SC5250

Silicon NPN Triple Diffused Planar

## HITACHI

Preliminary

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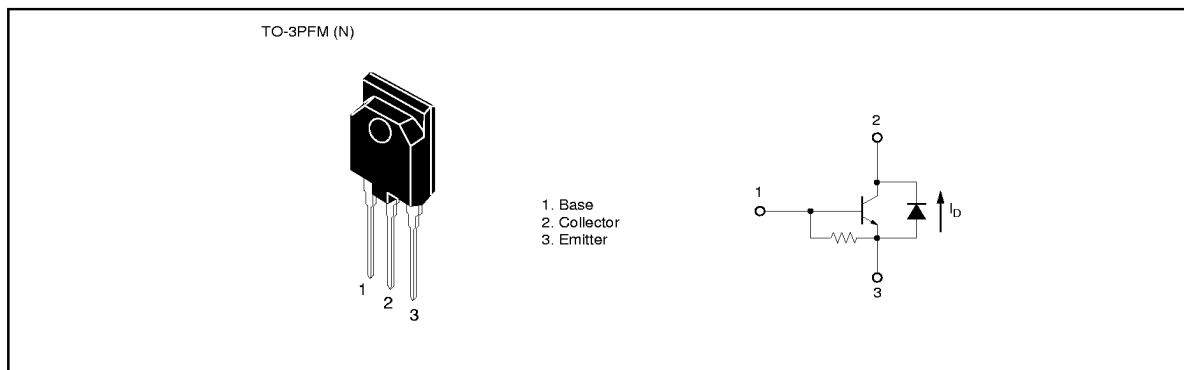
### Application

Character display horizontal deflection output

### Features

- High breakdown voltage  
 $V_{CBO} = 1500 \text{ V}$
- High speed switching  
 $t_r = 0.2 \mu\text{sec (typ)}$
- Built-in damper diode type
- Isolated package  
TO-3P•FM (N)

### Outline



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### 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	$I_{C(peak)}$	16	A
Collector power dissipation	$P_C^{*1}$	50	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C
Diode 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	$I_E = 400\text{ mA}, I_C = 0$
Collector cutoff current	$I_{CES}$	—	—	500	$\mu\text{A}$	$V_{CE} = 1500\text{ V}, R_{BE} = 0$
DC current transfer ratio	$h_{FE1}$	6	—	25		$V_{CE} = 5\text{ V}, I_C = 1\text{ A}$
DC current transfer ratio	$h_{FE2}$	4	—	7		$V_{CE} = 5\text{ V}, I_C = 5\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 5\text{ A}, I_B = 1.25\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 5\text{ A}, I_B = 1.25\text{ A}$
Forward voltage of damper diode	$V_{ECF}$	—	—	2	V	$I_F = 8\text{ A}$
Fall time	$t_f$	—	0.2	0.4	$\mu\text{sec}$	$I_{CP} = 5\text{ A}, I_{B1} = 1\text{ A},$ $f_H = 31.5\text{ kHz}$

