

Silicon NPN Power Transistors

2SD1266 2SD1266A

DESCRIPTION

- With TO-220Fa package
- High forward current transfer ratio h_{FE} which has satisfactory linearity
- Low collector saturation voltage
- Complement to type 2SB941/941A

APPLICATIONS

- For power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

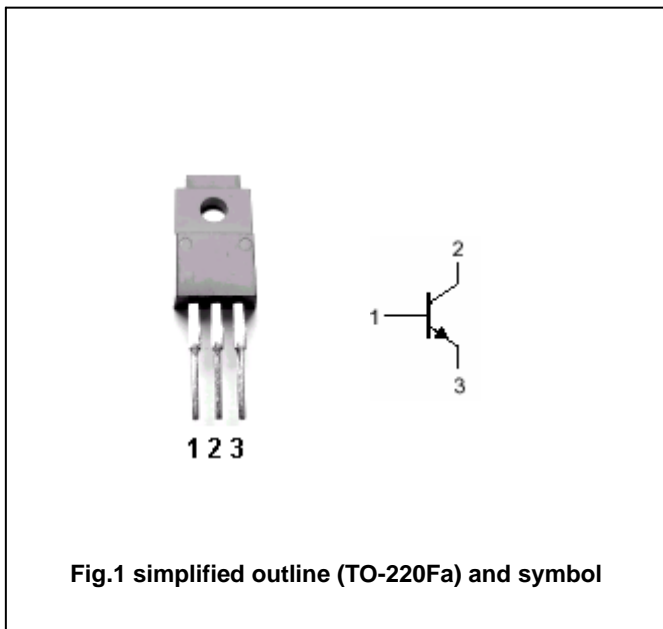


Fig.1 simplified outline (TO-220Fa) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SD1266	60	V
		2SD1266A	80	
V_{CEO}	Collector-emitter voltage	2SD1266	60	V
		2SD1266A	80	
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3	A
I_{CM}	Collector current-peak		5	A
P_C	Collector power dissipation	$T_a=25^{\circ}C$	2	W
		$T_C=25^{\circ}C$	35	
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter voltage	2SD1266	I _C =30mA, I _B =0	60			V
		2SD1266A		80			
V _{CEsat}	Collector-emitter saturation voltage		I _C =3A, I _B =0.375A			1.2	V
V _{BE}	Base-emitter voltage		I _C =3A; V _{CE} =4V			1.8	V
I _{EBO}	Emitter cut-off current		V _{EB} =6V; I _C =0			1	mA
I _{CEO}	Collector cut-off current	2SD1266	V _{CE} =30V; I _B =0			0.3	mA
		2SD1266A	V _{CE} =60V; I _B =0				
I _{CES}	Collector cut-off current	2SD1266	V _{CE} =60V; V _{BE} =0			0.2	mA
		2SD1266A	V _{CE} =80V; V _{BE} =0				
h _{FE-1}	DC current gain		I _C =1A; V _{CE} =4V	70		250	
h _{FE-2}	DC current gain		I _C =3A; V _{CE} =4V	10			
f _T	Transition frequency		I _C =0.5A; V _{CE} =10V, f=10MHz		30		MHz

Switching times

t _{on}	Turn-on time	I _C =1A I _{B1} =0.1A, I _{B2} =-0.1A V _{CC} =50V,		0.5		μs
t _{stg}	Storage time			2.5		μs
t _f	Fall time			0.4		μs

◆ h_{FE-1} Classifications

Q	P
70-150	120-250

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PACKAGE OUTLINE

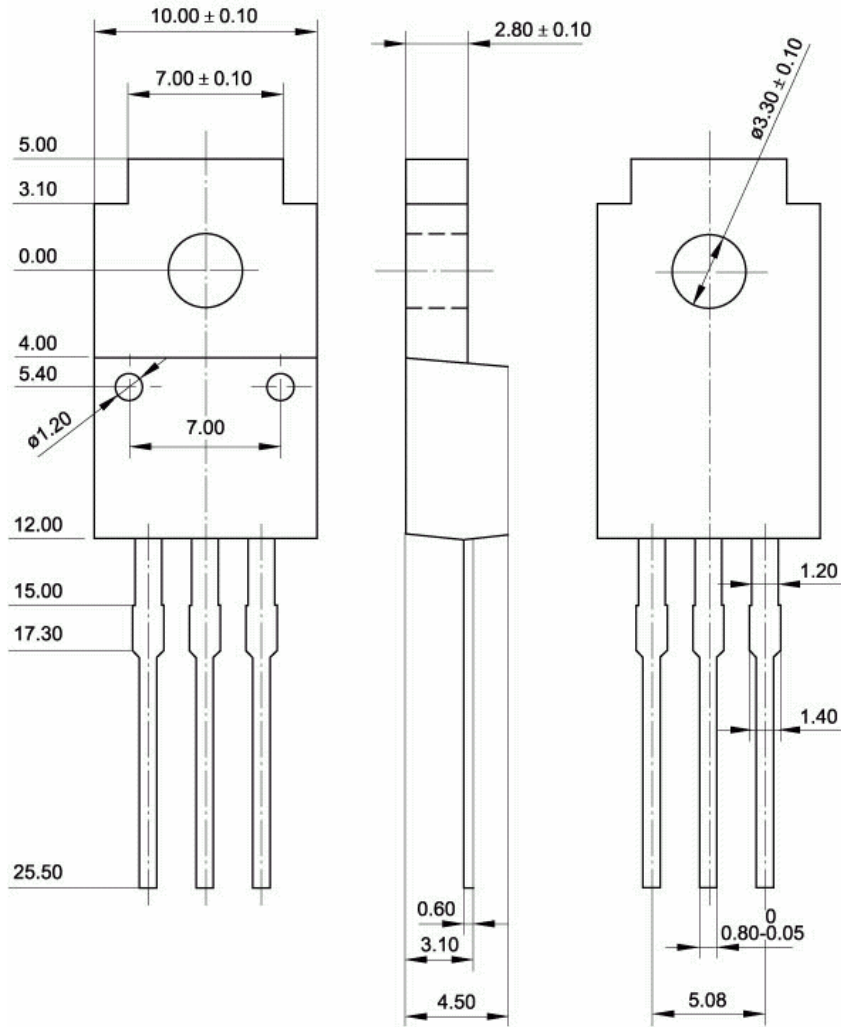


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)

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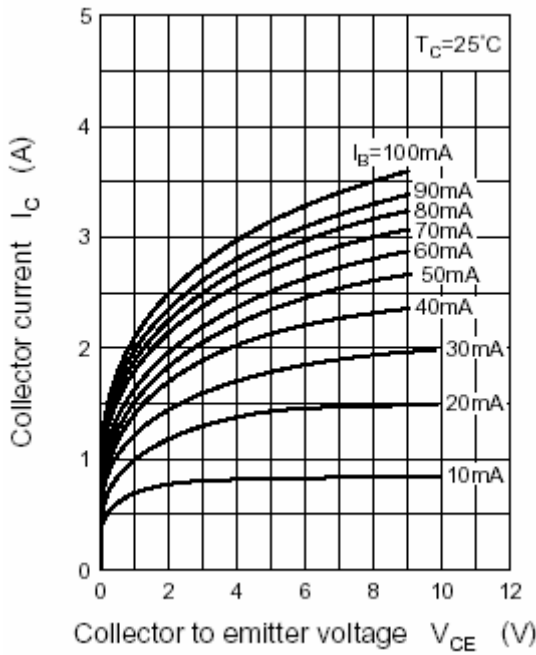


Fig.3 Static Characteristic

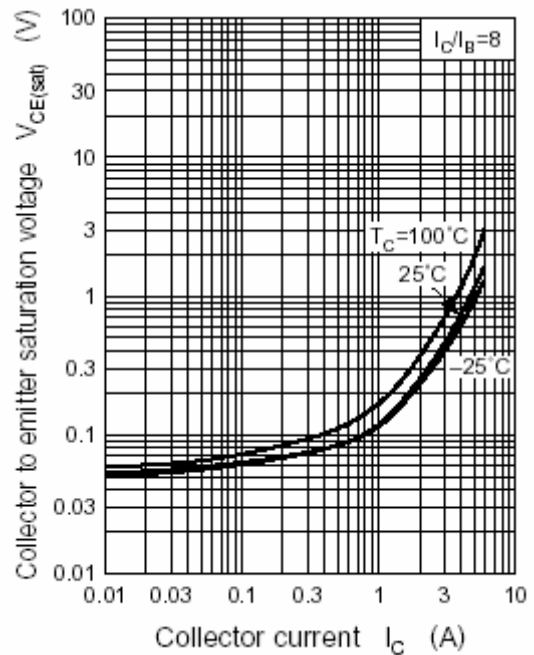


Fig.4 Collector-Emitter Saturation Voltage

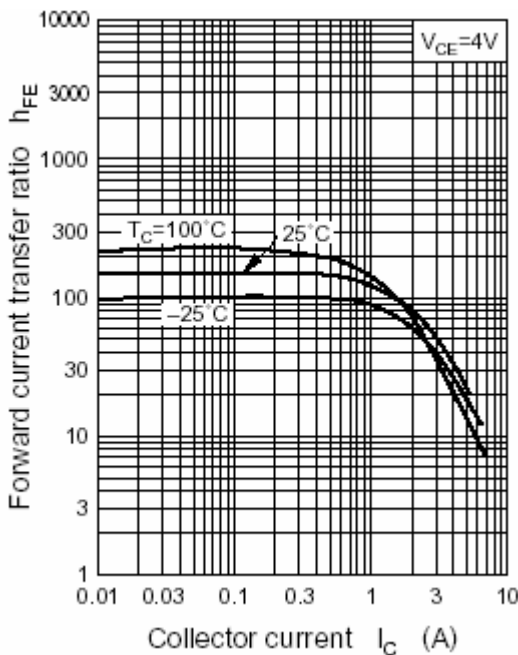


Fig.5 DC current Gain

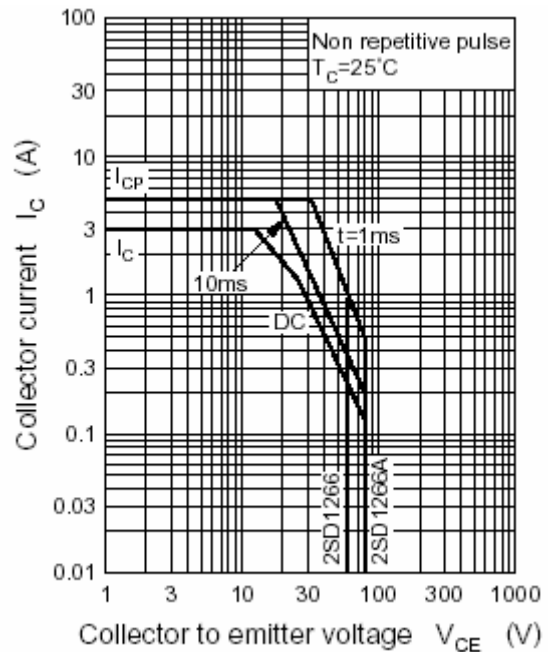


Fig.6 Safe Operating Area