Silicon NPN Power Transistors 2SC3254

DESCRIPTION

·With TO-220 package
·Short switching time
·Low collector saturation voltage
·Complement to type 2SA1290

APPLICATIONS

·Various inductance lamp drivers for electrical equipment
·Inverters,converters
·Power amplifier
·Switching regulator ,driver

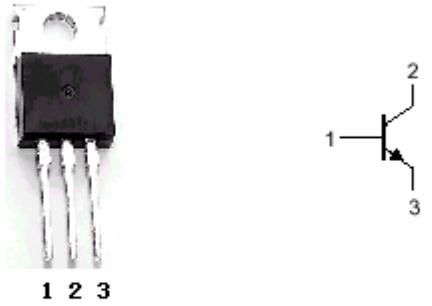

Fig.1 simplified outline (TO-220C) and symbol

PINNING

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

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		7	A
I_{CM}	Collector current-peak		10	A
P_C	Collector power dissipation	T_C=25□	35	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA ,R_{BE}=∞	60			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ,I_E=0	80			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=1mA ,I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3.5A; I_B=0.175A			0.4	V
I_{CBO}	Collector cut-off current	V_{CB}=40V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=4V; I_C=0			100	μA
h_{FE}	DC current gain	I_C=1A ; V_{CE}=2V	70		280	
f_T	Transition frequency	I_C=1A ; V_{CE}=5V		100		MHz
Switching times						
t_{on}	Turn-on time	V_{CE}=20V; I_C=3A I_{B1}=-I_{B2}=0.15A;R_L=6.67Ω		0.1		μs
t_{stg}	Storage time			0.5		μs
t_f	Fall time			0.1		μs

◆ h_{FE} Classifications

Q	R	S
70-140	100-200	140-280

PACKAGE OUTLINE

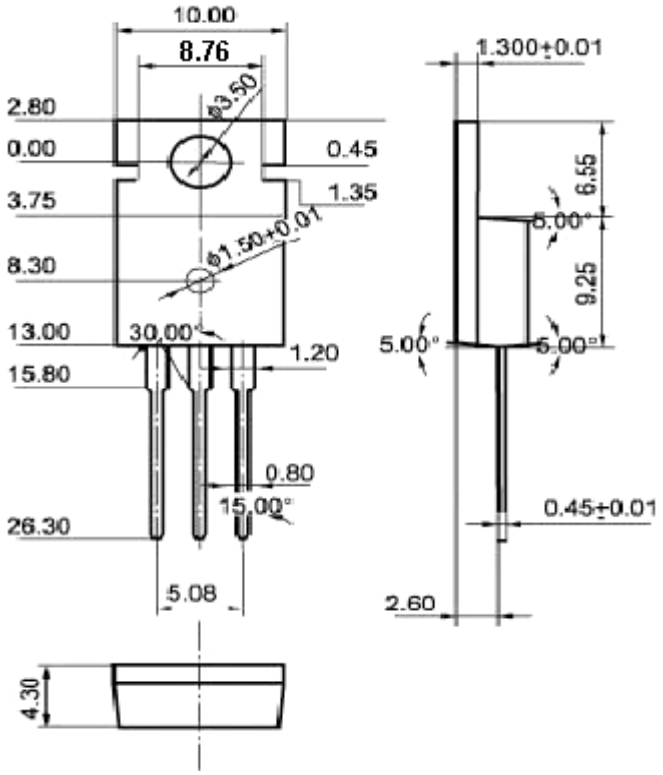

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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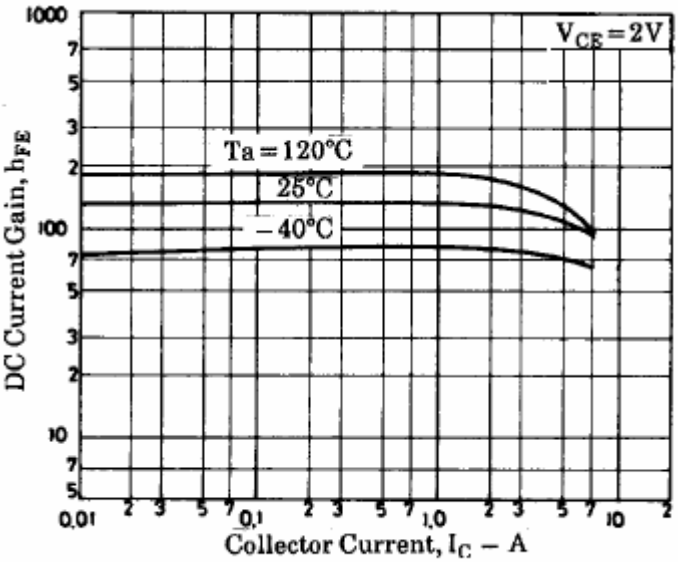

Fig.3 DC current Gain

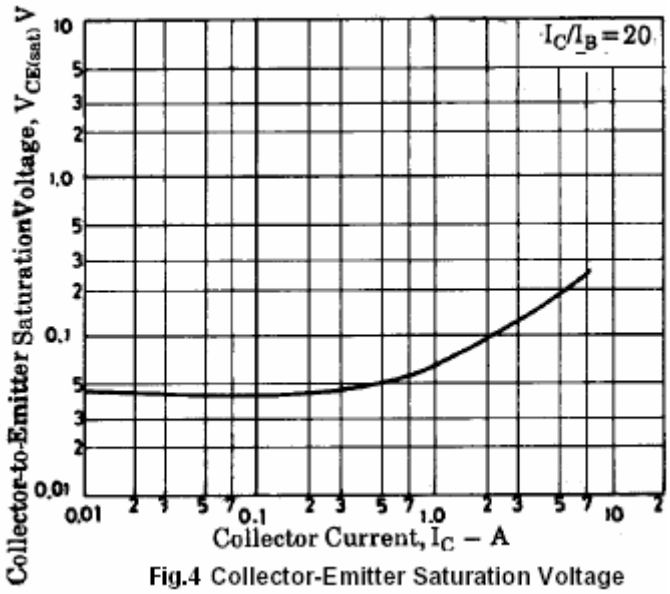

Fig.4 Collector-Emitter Saturation Voltage

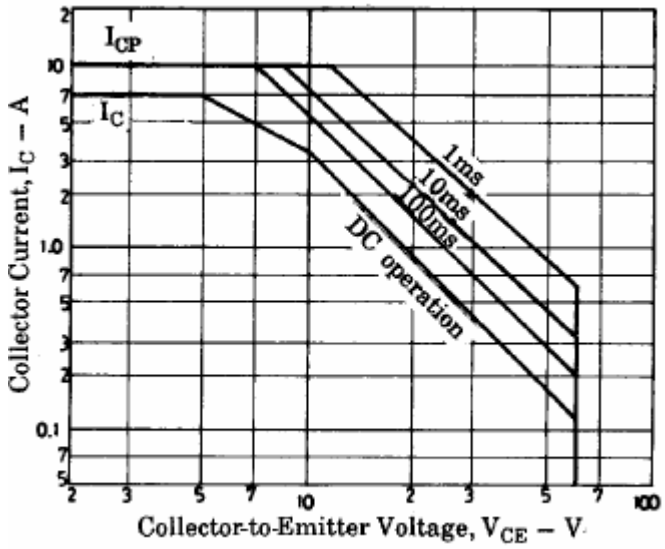

Fig.5 Safe Operating Area