

Silicon NPN Power Transistors

2SC2562

DESCRIPTION

- With TO-220 package
- Complement to type 2SA1012
- Low saturation voltage
- High speed switching time

APPLICATIONS

- High current switching applications

PINNING

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

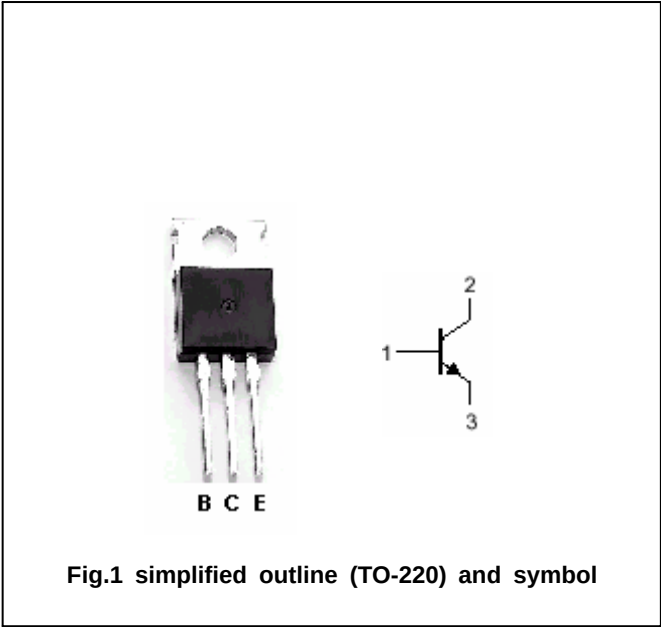


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	60	V
V _{CEO}	Collector-emitter voltage	Open base	50	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		5	A
I _B	Base current		1	A
P _T	Total power dissipation	T _C =25°C	25	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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2SC2562

CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Base-emitter breakdown voltage	$I_C=10mA, I_B=0$	50			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A; I_B=0.15A$			0.4	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A; I_B=0.15A$			1.2	V
I_{CBO}	Collector cut-off current	$V_{CB}=50V; I_E=0$			1	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			1	μA
h_{FE-1}	DC current gain	$I_C=1A; V_{CE}=1V$	70		240	
h_{FE-2}	DC current gain	$I_C=3A; V_{CE}=1V$	30			
f_T	Transition frequency	$I_C=1A; V_{CE}=4V$		120		MHz
C_{ob}	Output capacitance	$f=1MHz; V_{CB}=10V$		80		pF

Switching times

t_{on}	Turn-on time	$I_C=3A; I_{B1}=-I_{B2}=0.15A$ $R_L=10\Omega, V_{CC}=30V$		0.1		μs
t_s	Storage time			1.0		μs
t_f	Fall time			0.1		μs

◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

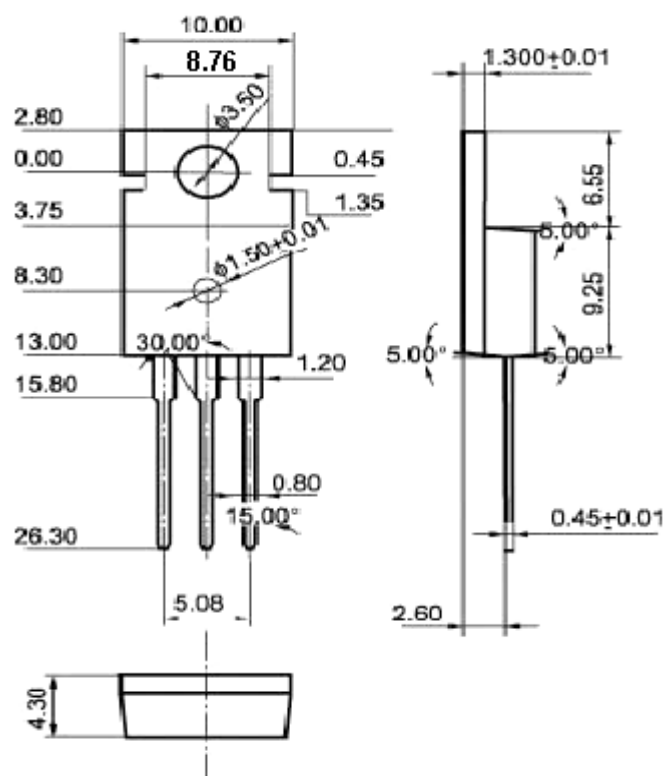


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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2SC2562

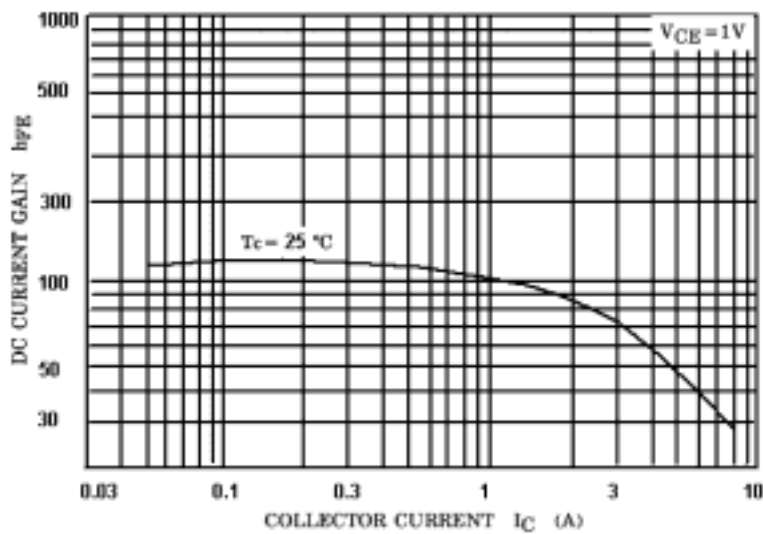


Fig.3 DC current Gain

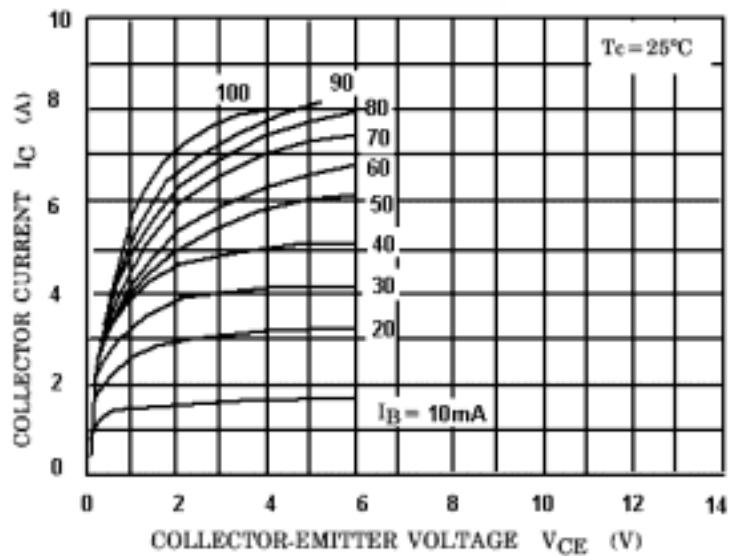


Fig.4 Static Characteristic

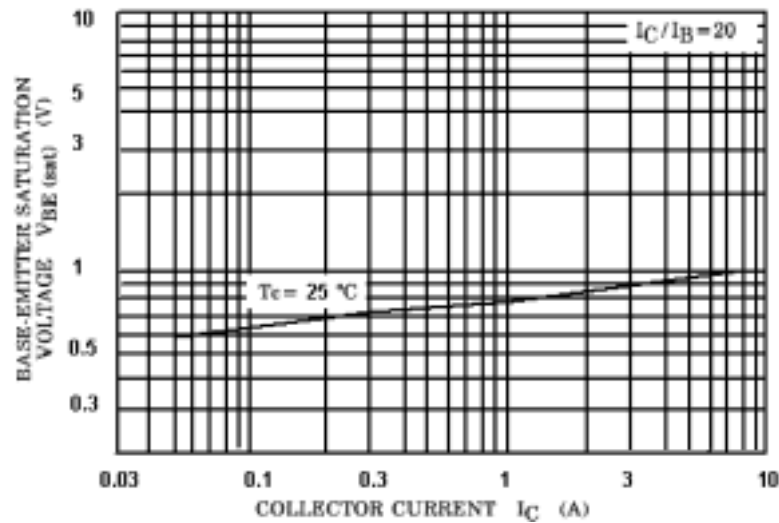


Fig.5 Base-Emitter Saturation Voltage

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2SC2562

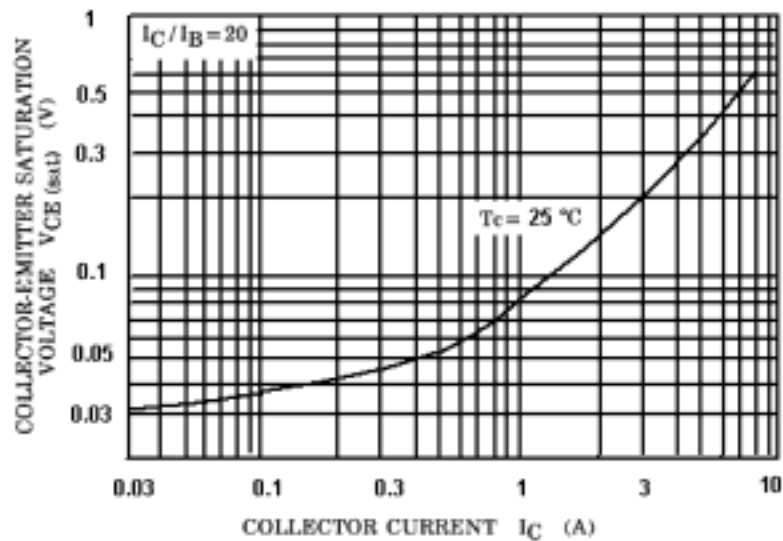


Fig.6 Collector-Emitter Saturation Voltage

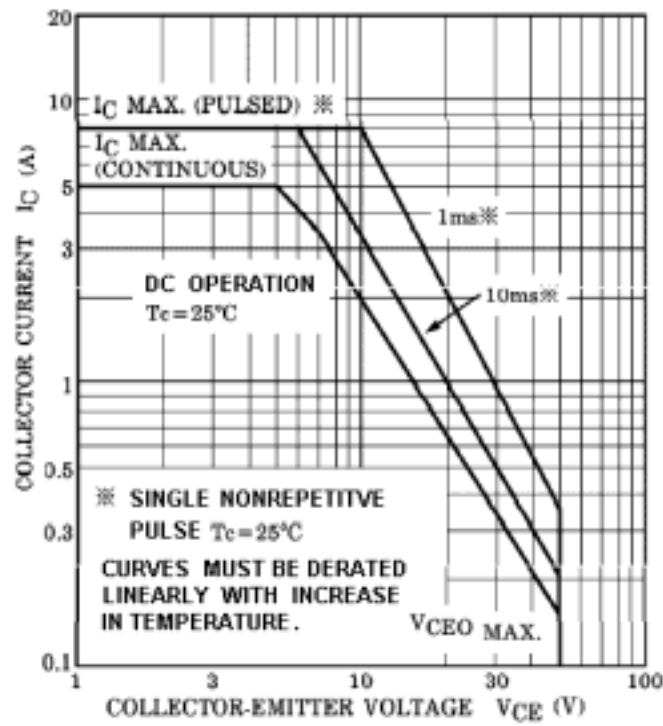


Fig.7 Safe Operating Area