



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

**SURFACE MOUNT
Dual Silicon Transistor**

VOLTAGE 15 Volts CURRENT 500 mAmpere

CHEMX18PT

APPLICATION

* Small Signal Amplifier .

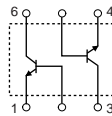
FEATURE

- * Small surface mounting type. (SOT-563)
- * Low saturation voltage $V_{CE(sat)}=0.25V(max.)$ ($I_c=200mA$)
- * Low cob. $C_{ob}=7.5pF(Typ.)$
- * $P_c= 150mW$ (Total),120mW per element must not be exceeded.
- * High saturation current capability.
- * Two the 2SC5585 in one package.
- * NPN Silicon Transistor

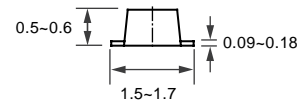
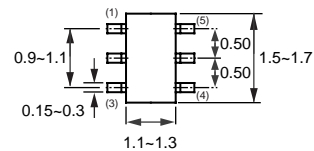
MARKING

*X8

CIRCUIT



SOT-563



Dimensions in millimeters

SOT-563

2SC5585 LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{CBO}	Collector-base voltage		—	15	V
V_{CEO}	Collector-emitter voltage		—	12	V
V_{EBO}	Emitter-base voltage		—	6	V
I_c	DC Output current		—	500	mA
I_{cp}		NOTE.1	—	1000	
P_c	Total power dissipation	NOTE.2	—	150	mW
T_{STG}	Storage temperature		-55	+150	°C
T_J	Junction temperature		—	150	°C

Note

1. Single pulse $P_w=1ms$
2. 120mW per element must not be exceeded.
Each terminal mounted on a recommended land.

RATING CHARACTERISTIC CURVES (CHEMX18PT)

2SC5585 CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
BV_{CEO}	Collector-emitter breakdown voltage	$I_C=1\text{mA}$	12	–	–	V
BV_{CBO}	Collector-base breakdown voltage	$I_C=10\mu\text{A}$	15	–	–	V
BV_{EBO}	Emitter-base breakdown voltage	$I_E=10\mu\text{A}$	6	–	–	V
I_{CBO}	Collector cut-off current	$V_{CB}=15\text{V}$	–	–	100	nA
I_{EBO}	Emitter cut-off current	$V_{EB}=6\text{V}$	–	–	100	nA
h_{FE}	DC current gain	$V_{CE}=2\text{V}, I_C=10\text{mA}$	270	–	680	–
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=200\text{mA}, I_B=10\text{mA}$	–	90	250	mV
C_{ob}	Collector output capacitance	$V_{CB}=10\text{V}, I_E=0\text{mA}, f=1\text{MHz}$	–	7.5	–	pF
f_T	Transition frequency	$V_{CE}=2\text{V}, I_E=-10\text{mA}, f=100\text{MHz}$	–	320	–	MHz

Note

1. Pulse test: $t_p \leq 300\mu\text{s}$; $\delta \leq 0.02$.

RATING CHARACTERISTIC CURVES (CHEMX18PT)

2SC5585 Typical Electrical Characteristics

Fig.1 Ground emitter propagation characteristics

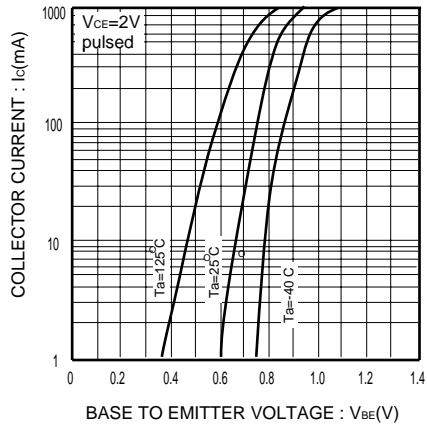


Fig.2 DC current gain vs. collector current

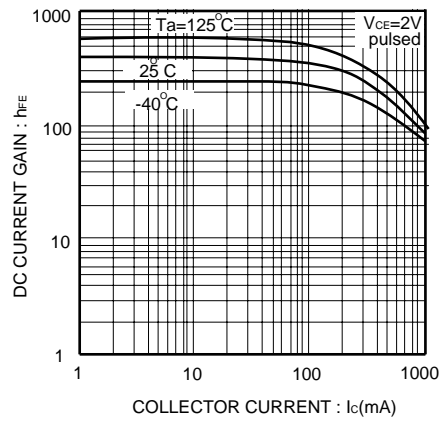


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

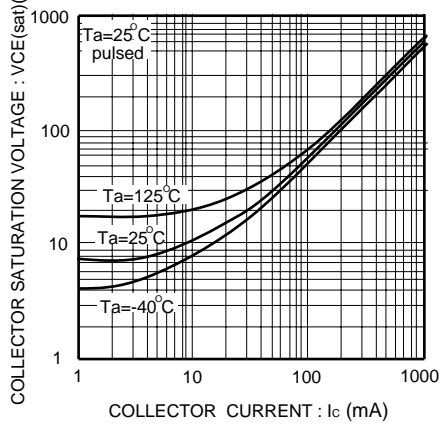
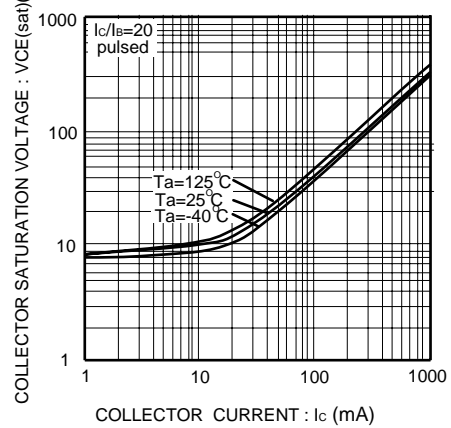


Fig.4 Collector-emitter saturation voltage vs. collector current (II)



RATING CHARACTERISTIC CURVES (CHEMX18PT)

2SC5585 Typical Electrical Characteristics

Fig.5 Base-emitter saturation voltage vs. collector current

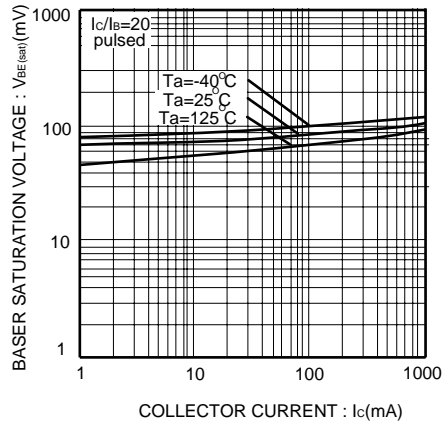


Fig.6 Gain bandwidth product vs. collector current

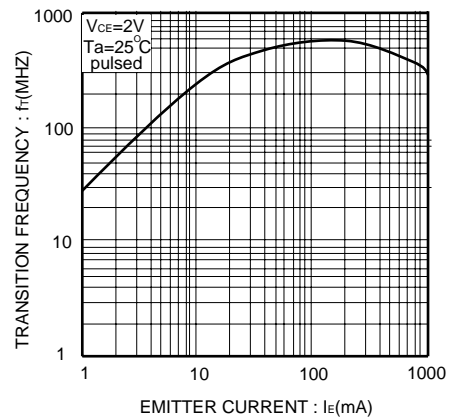


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

