CHENMKO ENTERPRISE CO.,LTD

CHEMZ7PT

Lead free devices

SURFACE MOUNT
Dual Silicon Transistor

VOLTAGE 15 Volts CURRENT 500 mAmpere

APPLICATION

* Small Signal Amplifier .

FEATURE

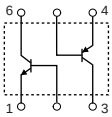
* Small surface mounting type. (SOT-563)
* Low saturation voltage $V_{CE(sat)}$=0.25V(max.)(I_C=200mA)
* Low cob. Cob=7.5pF(Typ.)
* P_C= 150mW (Total),120mW per element must not be exceeded.
* High saturation current capability.
* Both the 2SC5585 & 2SA2018 in one package.
* NPN / PNP Silicon Transistor

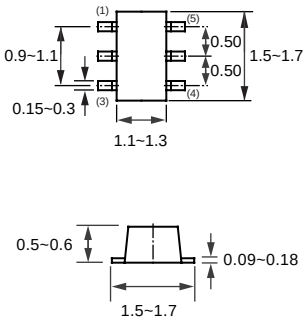
MARKING

* Z7

SOT-563

CIRCUIT





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

2004-07

2SA2018 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
IC	DC Output current		–	-500	mA
I_{CP}		NOTE.1	–	-1000	
P_c	power dissipation		–	150	mW
T_{STG}	Storage temperature		–55	+150	°C
T_J	Junction temperature		–	150	°C

Note

1. Single Pulse Pw=1ms

2SC5585 CHARACTERISTICS

T_{amb} = 25 °C unless otherwise speciÞed.

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

2SA2018 CHARACTERISTICS

T_{amb} = 25 °C unless otherwise speciÞed.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
BV_{CEO}	Collector-emitter breakdown voltage	I_C=-1mA	-12	–	–	V
BV_{CBO}	Collector-base breakdown voltage	I_C=-10uA	-15	–	–	V
BV_{EBO}	Emitter-base breakdown voltage	I_E=-10uA	-6	–	–	V
I_{CBO}	Collector cut-off current	V_{CB}=-15V	–	–	-100	nA
I_{EBO}	Emitter cut-off current	V_{EB}=-6V	–	–	-100	nA
h_{FE}	DC current gain	V_{CE}=-2V,I_C=-10mA	270	–	680	–
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=-200mA,I_B=-10mA	–	-100	-250	mV
Cob	Collector output capacitance	V_{CB}=-10V,I_E=0mA,f=1MHZ	–	6.5	–	pF
f_T	Transition frequency	V_{CE}=-2V,I_E=10mA,f=100MHZ	–	260	–	MHz

RATING CHARACTERISTIC CURVES (CHEMZ7PT)

2SC5585 Typical Electrical Characteristics

Fig.1 Ground emitter propagation characteristics

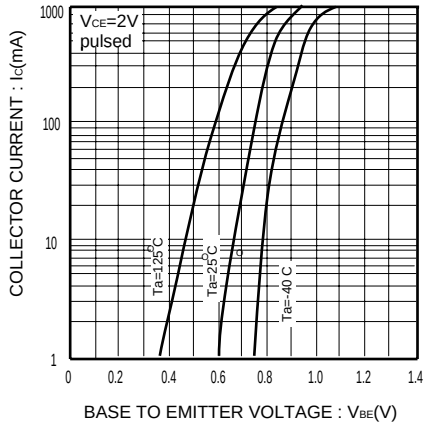


Fig.2 DC current gain vs. collector current

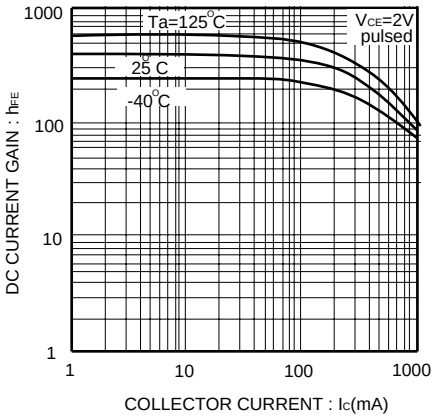


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

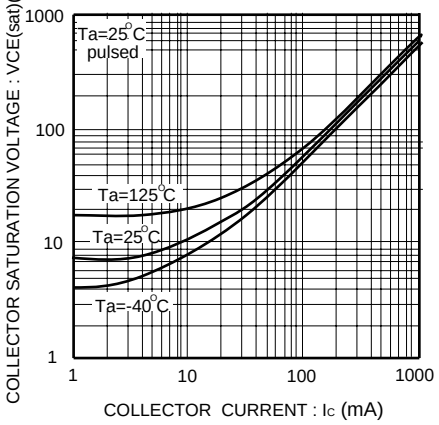
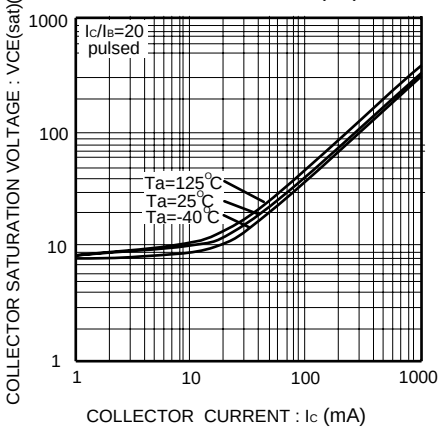


Fig.4 Collector-emitter saturation voltage vs. collector current (II)



RATING CHARACTERISTIC CURVES (CHEMZ7PT)

2SC5585 Typical Electrical Characteristics

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

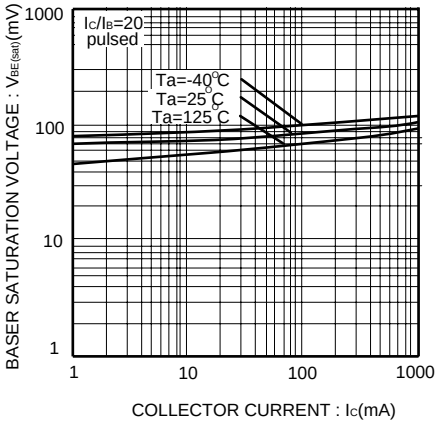


Fig.6 Gain bandwidth product vs. collector current

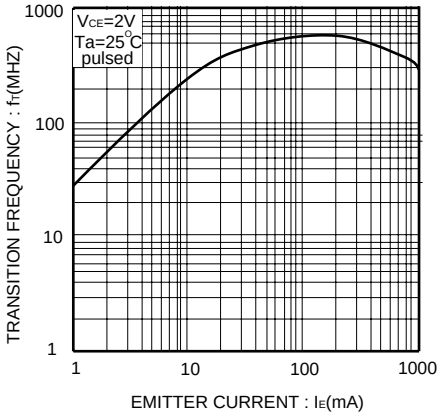
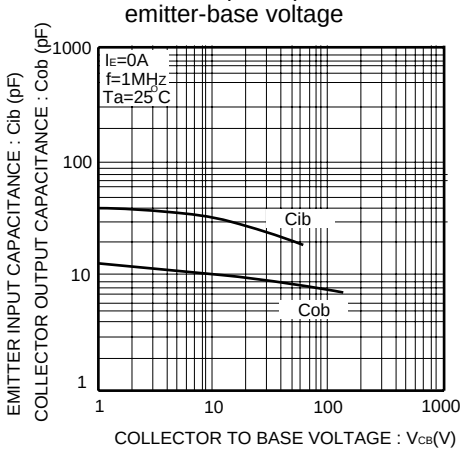


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage



RATING CHARACTERISTIC CURVES (CHEMZ7PT)

2SA2018 Typical Electrical Characteristics

Fig.1 Ground emitter propagation characteristics

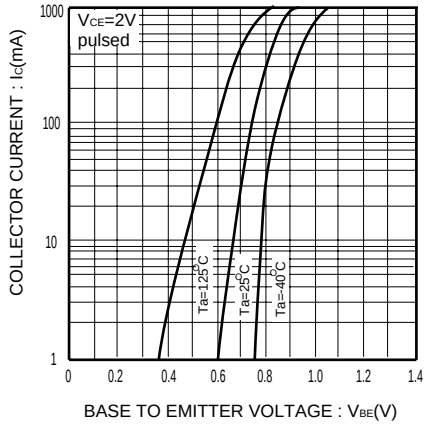


Fig.2 DC current gain vs. collector current

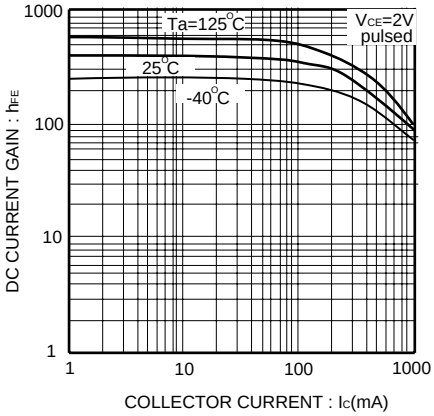


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

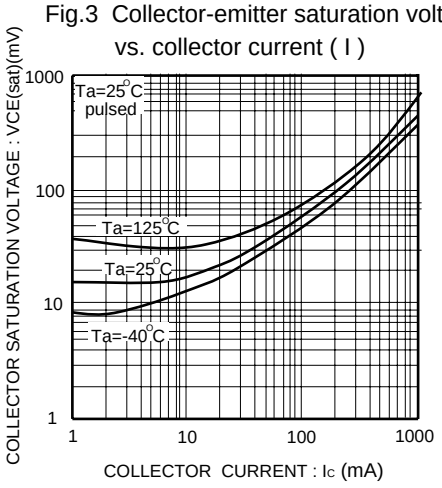
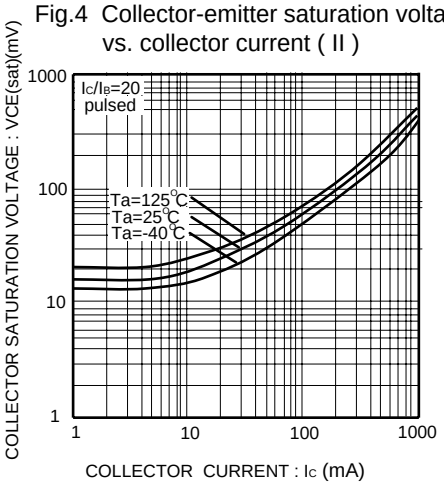


Fig.4 Collector-emitter saturation voltage vs. collector current (II)



RATING CHARACTERISTIC CURVES (CHEMZ7PT)

2SA2018 Typical Electrical Characteristics

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

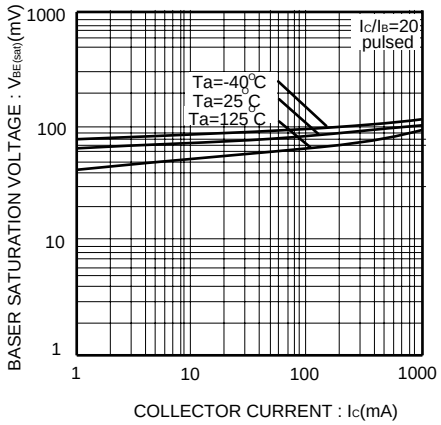


Fig.6 Gain bandwidth product vs. collector current

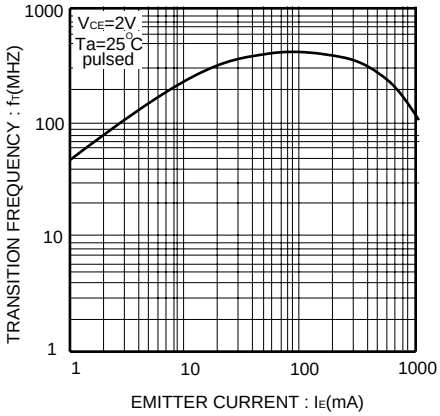


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage