



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

**SURFACE MOUNT
Dual Silicon Transistor**

VOLTAGE 12 Volts CURRENT 0.5 Ampere

CHEMT18PT

APPLICATION

* Small Signal Amplifier .

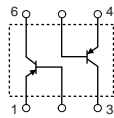
FEATURE

- * Small surface mounting type. (SOT-563)
- * Low saturation voltage $V_{CE(sat)} = -0.25V(\text{max.})(I_c = 200mA)$
- * Low cob. $C_{ob} = 6.5pF(\text{Typ.})$
- * $P_c = 150mW$ (Total), 120mW per element must not be exceeded.
- * High saturation current capability.
- * Two the 2SA2018 in one package.
- * PNP Silicon Transistor

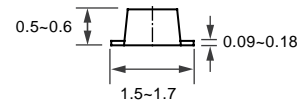
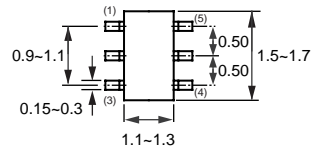
MARKING

* T8

CIRCUIT



SOT-563



Dimensions in millimeters

SOT-563

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
I_C	DC Output current		-	-500	mA
I_{CP}		NOTE.1	-	-1000	
P_c	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 (CHEMT18PT)

2SA2018 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	$I_c = -200\text{mA}, I_B = -10\text{mA}$	-	-100	-250	mV
C_{ob}	Collector output capacitance	$V_{CB} = -10\text{V}, I_E = 0\text{mA}, f = 1\text{MHz}$	-	6.5	-	pF
f_T	Transition frequency	$V_{CE} = -2\text{V}, I_E = 10\text{mA}, f = 100\text{MHz}$	-	260	-	MHz

Note

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

RATING CHARACTERISTIC CURVES (CHEMT18PT)

2SA2018 Typical Electrical Characteristics

Fig.1 Ground emitter propagation characteristics

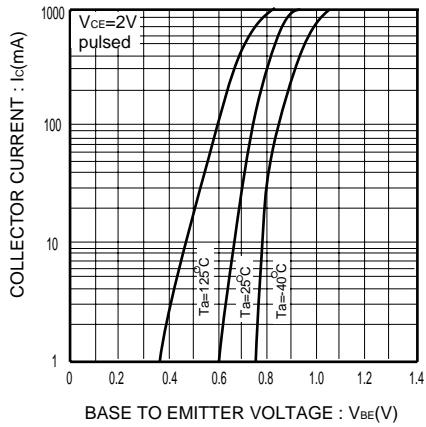


Fig.2 DC current gain vs. collector current

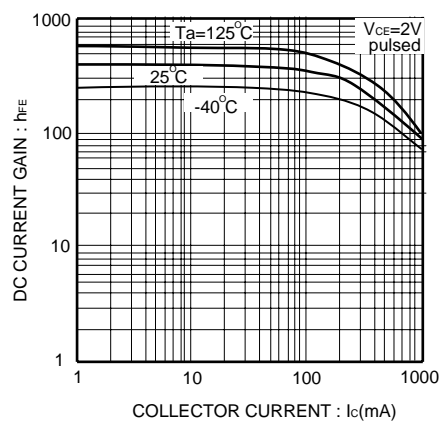


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

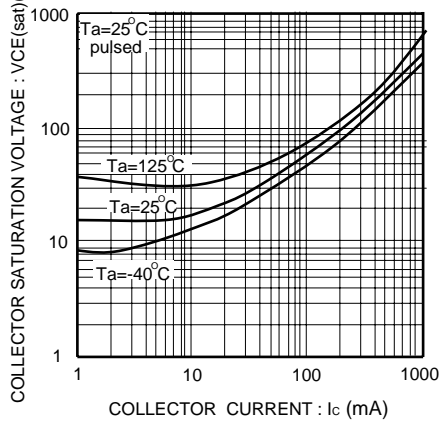
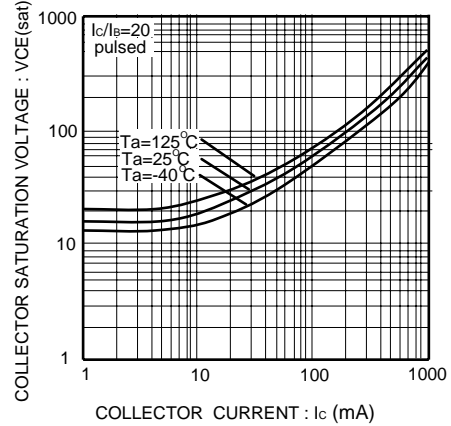


Fig.4 Collector-emitter saturation voltage vs. collector current (II)



RATING CHARACTERISTIC CURVES (CHEMT18PT)

2SA2018 Typical Electrical Characteristics

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

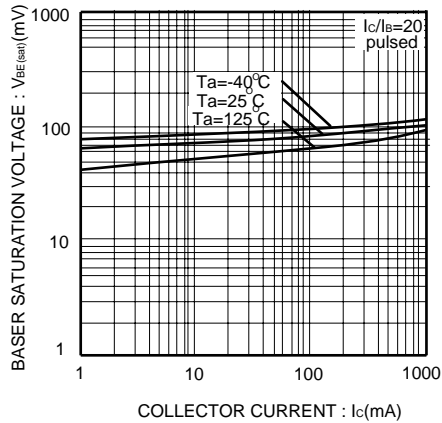


Fig.6 Gain bandwidth product vs. collector current

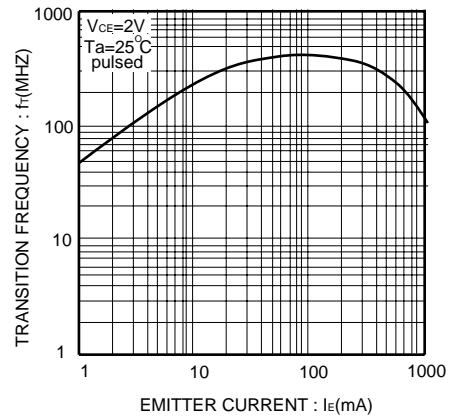


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

