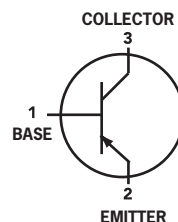


### PNP Silicon Transistors

 Lead(Pb)-Free



### MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	-30	Vdc
Collector-Base Voltage	V <sub>CBO</sub>	-35	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	-5.0	Vdc
Collector Current -Continuous	I <sub>C</sub>	-800	mAdc

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Total Device Dissipation FR-5 Board <sup>(1)</sup> T <sub>A</sub> =25°C	P <sub>D</sub>	200	mW
Derate above 25°C		1.6	mW/°C
Thermal Resistance, Junction Ambient	R <sub>θJA</sub>	625	°C/W
Junction and Storage, Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C

### Device Marking

KTA1298=IO, IY

### ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = -10 mAdc, I <sub>B</sub> =0)	V <sub>(BR)CEO</sub>	-30	-	Vdc
Collector-Base Breakdown Voltage (I <sub>C</sub> = -1 uAdc, I <sub>E</sub> =0)	V <sub>(BR)CBO</sub>	-35	-	Vdc
Emitter-Base Breakdown Voltage (I <sub>E</sub> = -1 uAdc, I <sub>C</sub> =0)	V <sub>(BR)EBO</sub>	-5.0	-	Vdc
Collector Cutoff Current (V <sub>CB</sub> = -30Vdc, I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-1.0	uAdc
Emitter Cutoff Current (V <sub>EB</sub> = -5.0 Vdc, I <sub>C</sub> =0)	I <sub>EBO</sub>	-	-1.0	uAdc

1. FR-5=1.0 × 0.75 × 0.062 in

## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Typ	Max	Unit
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### ON CHARACTERISTICS

DC Current Gain ( $I_C = -100\text{ mAdc}, V_{CE} = -1\text{ Vdc}$ ) ( $I_C = -800\text{ mAdc}, V_{CE} = -1\text{ Vdc}$ )	$h_{FE} (1)$	100	-	320	-
	$h_{FE} (2)$	40	-	-	-
Collector-Emitter Saturation Voltage ( $I_C = -500\text{ mAdc}, I_B = -20\text{ mAdc}$ )	$V_{CE(sat)}$	-	-	-0.4	Vdc
Output Capacitance ( $V_{CB} = -10\text{ Vdc}, I_E = 0, f = 1\text{ MHz}$ )	$C_{ob}$	-	2.0	-	PF
Transition Frequency ( $I_C = -10\text{ mAdc}, V_{CE} = -5\text{ Vdc}, f = 30\text{ MHz}$ )	$f_T$	80	-	-	MHz

### CLASSIFICATION OF $h_{FE} (1)$

Rank	O	Y
Range	100-200	160-320

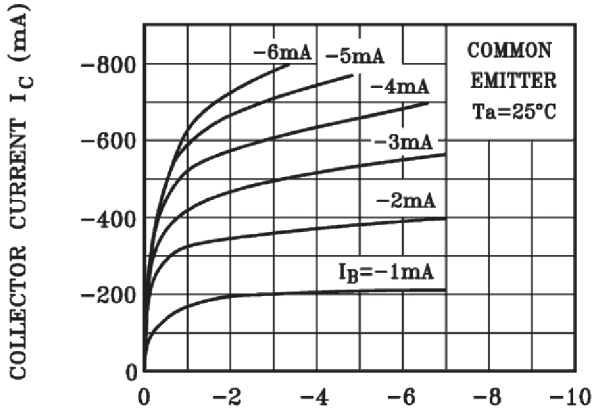


FIG.1 COLLECTOR-EMITTER VOLTAGE  $V_{CE}$  (V)

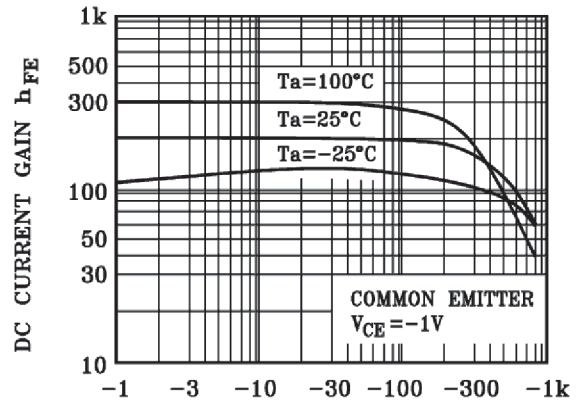


FIG.2 COLLECTOR CURRENT  $I_C$  (mA)

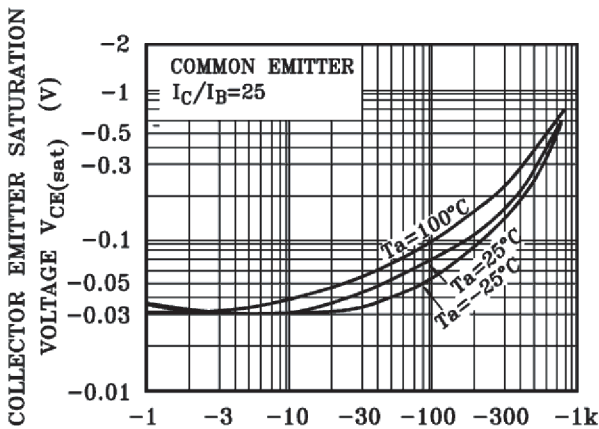


FIG.3 COLLECTOR CURRENT  $I_C$  (mA)

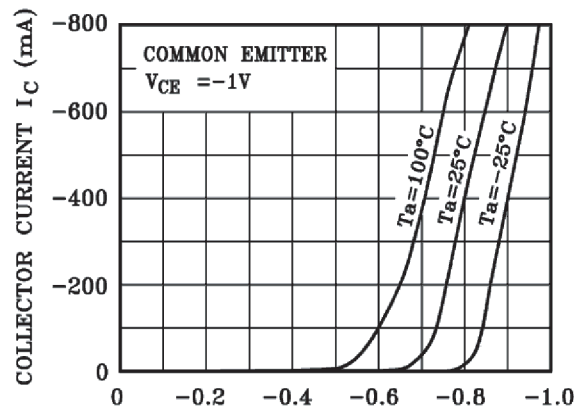


FIG.4 BASE-EMITTER VOLTAGE  $V_{BE}$  (V)

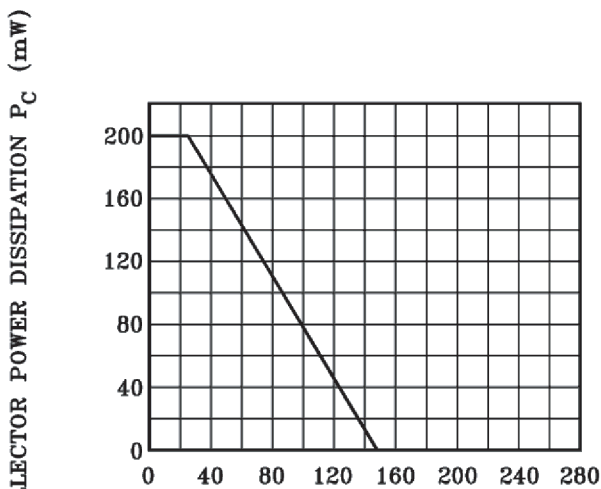
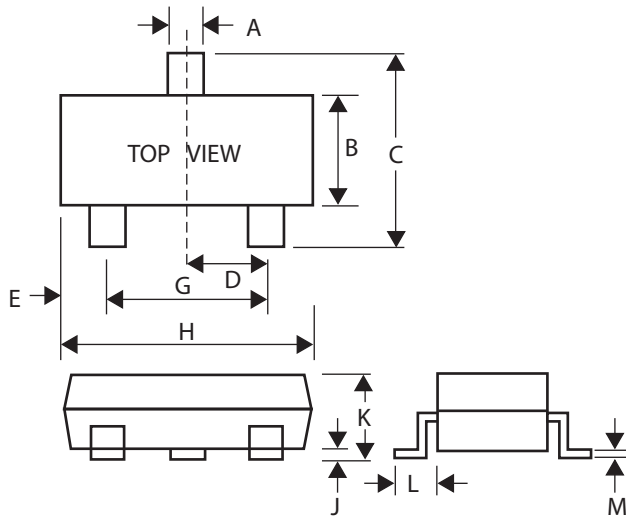


FIG.5 AMBIENT TEMPERATURE  $T_a$  (°C)

## SOT-23 Package Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25