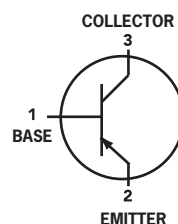


PNP Silicon Transistors

* “G” Lead(Pb)-Free



MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	-30	V _{dc}
Collector-Base Voltage	V _{CBO}	-35	V _{dc}
Emitter-Base Voltage	V _{EBO}	-5.0	V _{dc}
Collector Current -Continuous	I _C	-800	mAdc

THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ T _A =25°C	P _D	200	mW
Derate above 25°C		1.6	mW/°C
Thermal Resistance, Junction Ambient	R _{θJA}	625	°C/W
Junction and Storage, Temperature	T _J , T _{stg}	-55 to +150	°C

Device Marking

WTA8921=IO, IY

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I _C = -10 mAdc, I _B =0)	V _{(BR)CEO}	-30	-	V _{dc}
Collector-Base Breakdown Voltage (I _C = -1 uAdc, I _E =0)	V _{(BR)CBO}	-35	-	V _{dc}
Emitter-Base Breakdown Voltage (I _E = -1 uAdc, I _C =0)	V _{(BR)EBO}	-5.0	-	V _{dc}
Collector Cutoff Current (V _{CB} = -30V _{dc} , I _E =0)	I _{CBO}	-	-1.0	uAdc
Emitter Cutoff Current (V _{EB} = -5.0 V _{dc} , I _C =0)	I _{EBO}	-	-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 ($I_C = -100\text{ mAdc}, V_{CE} = -1\text{ Vdc}$) ($I_C = -800\text{ mAdc}, V_{CE} = -1\text{ Vdc}$)	$h_{FE} (1)$ $h_{FE} (2)$	100 40	- -	320 -	- -
Collector-Emitter Saturation Voltage ($I_C = -500\text{ mAdc}, I_B = -20\text{ mAdc}$)	$V_{CE(sat)}$	-	-	-0.4	Vdc
Output Capacitance ($V_{CB} = -10\text{ Vdc}, I_E = 0, f = 1\text{ MHz}$)	Cob	-	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

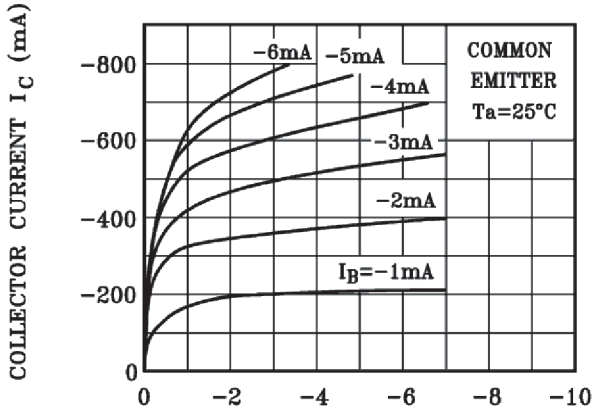


FIG.1 COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

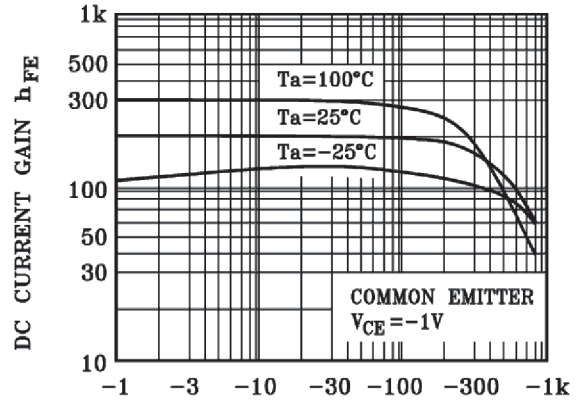


FIG.2 COLLECTOR CURRENT I_C (mA)

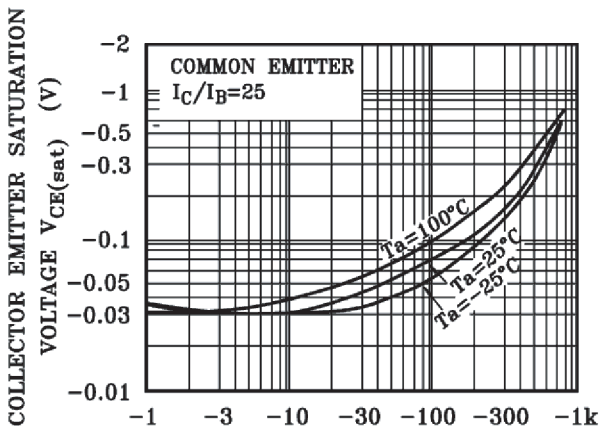


FIG.3 COLLECTOR CURRENT I_C (mA)

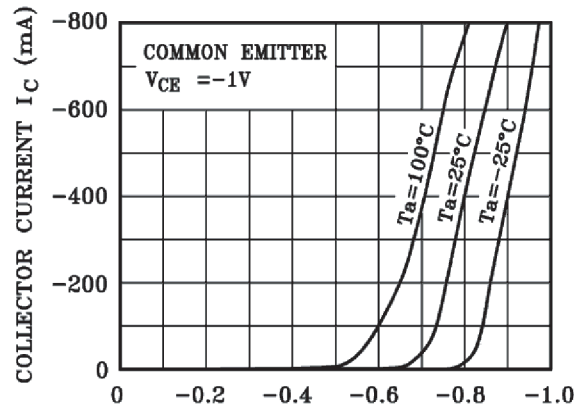


FIG.4 BASE-EMITTER VOLTAGE V_{BE} (V)

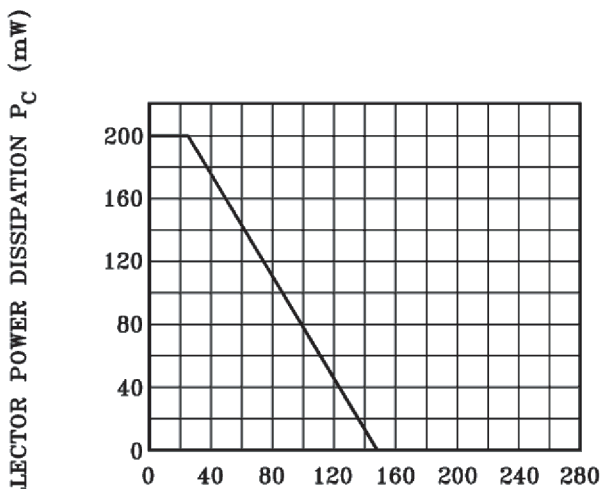
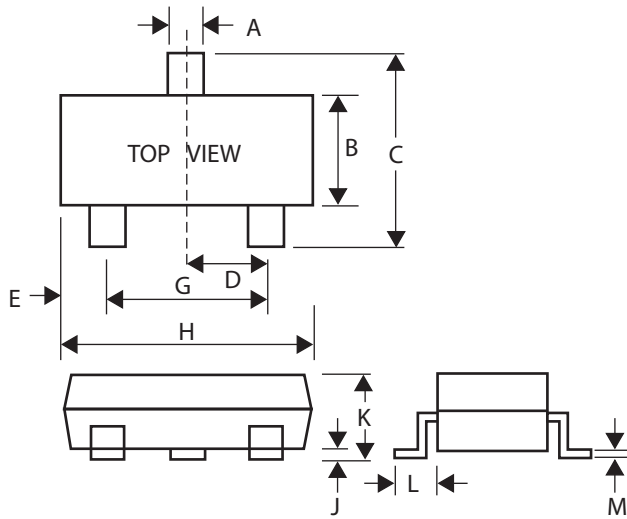


FIG.5 AMBIENT TEMPERATURE T_a (°C)

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