

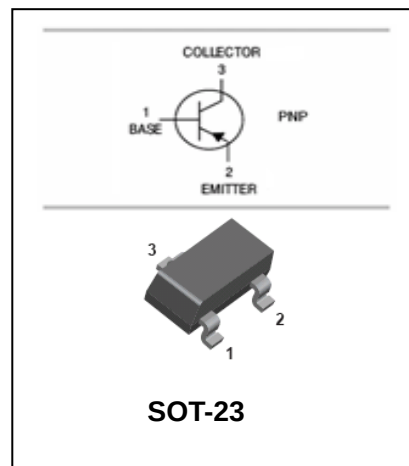
Silicon Epitaxial Planar Transistor

KTA1298

FEATURES

- High DC current gain: $h_{FE} = 100-320$
- Low saturation voltage: $V_{CE(sat)} = -0.4V(\text{Max})$
($I_C = -500mA, I_B = -20mA$)
- Suitable for driver stage of small motor
- Complementary to KTC3265
- Small package
- RoHS compliant with Halogen-free

HF



APPLICATIONS

- Low frequency power amplifier application
- Power switching application

ORDERING INFORMATION

Type No.	Marking	Package Code
KTA1298-O	IO	SOT-23
KTA1298-Y	IY	SOT-23

MAXIMUM RATING @ $T_a = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-35	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-800	mA
P_C	Collector Dissipation	200	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -1mA, I_E = 0$	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1mA, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100mA$	100		320	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -800mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -20mA$			-0.4	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1V, I_C = -10mA$	-0.5		-0.8	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		13		pF

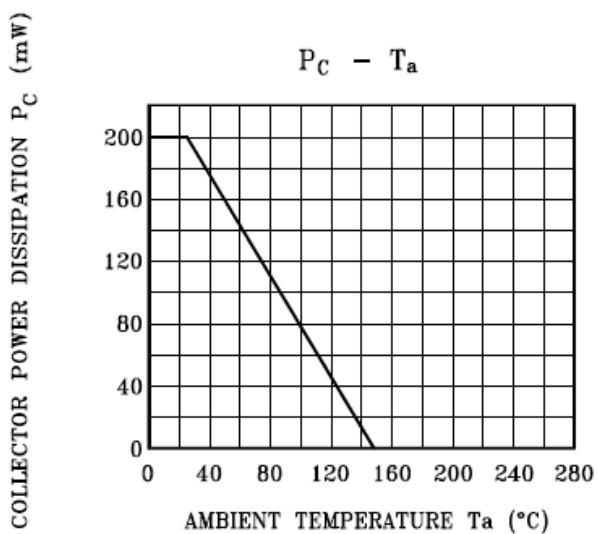
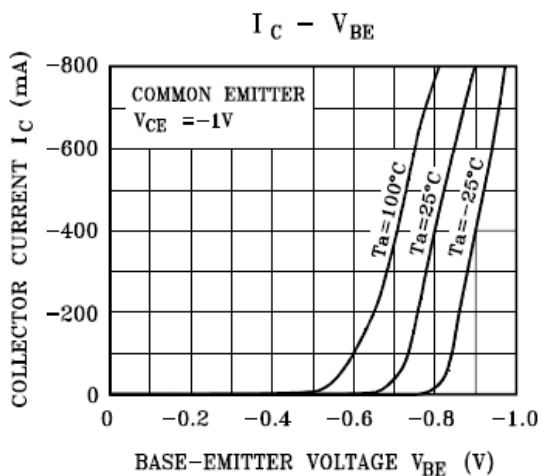
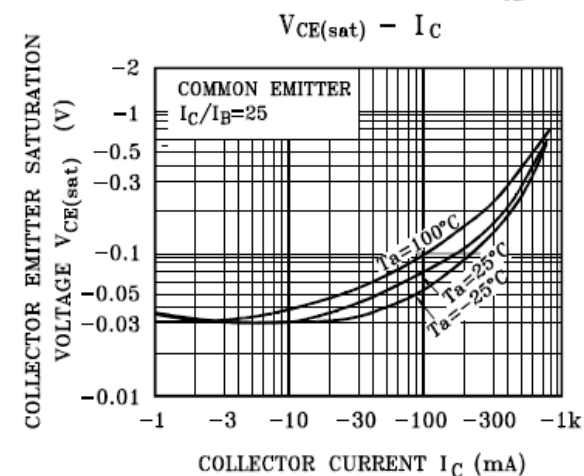
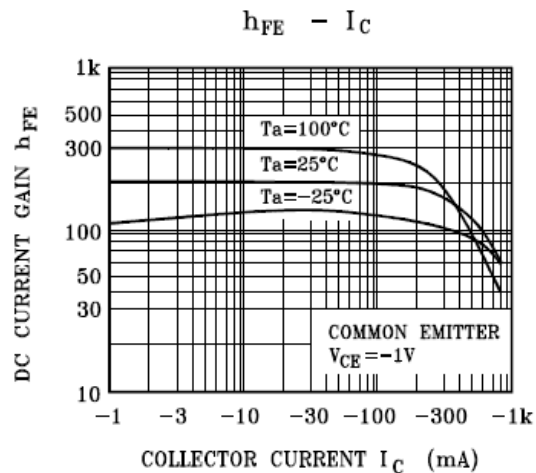
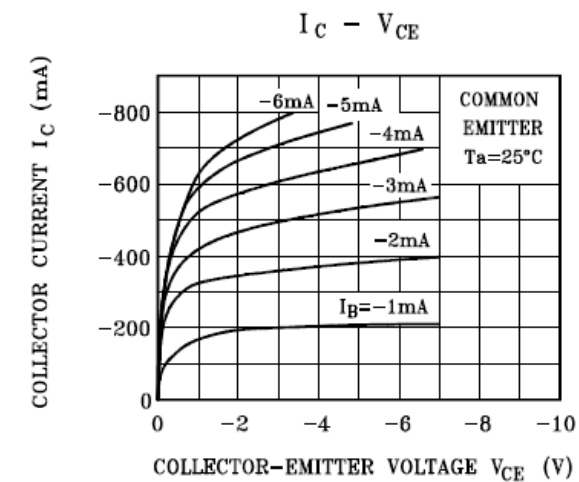
CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	100-200	160-320

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



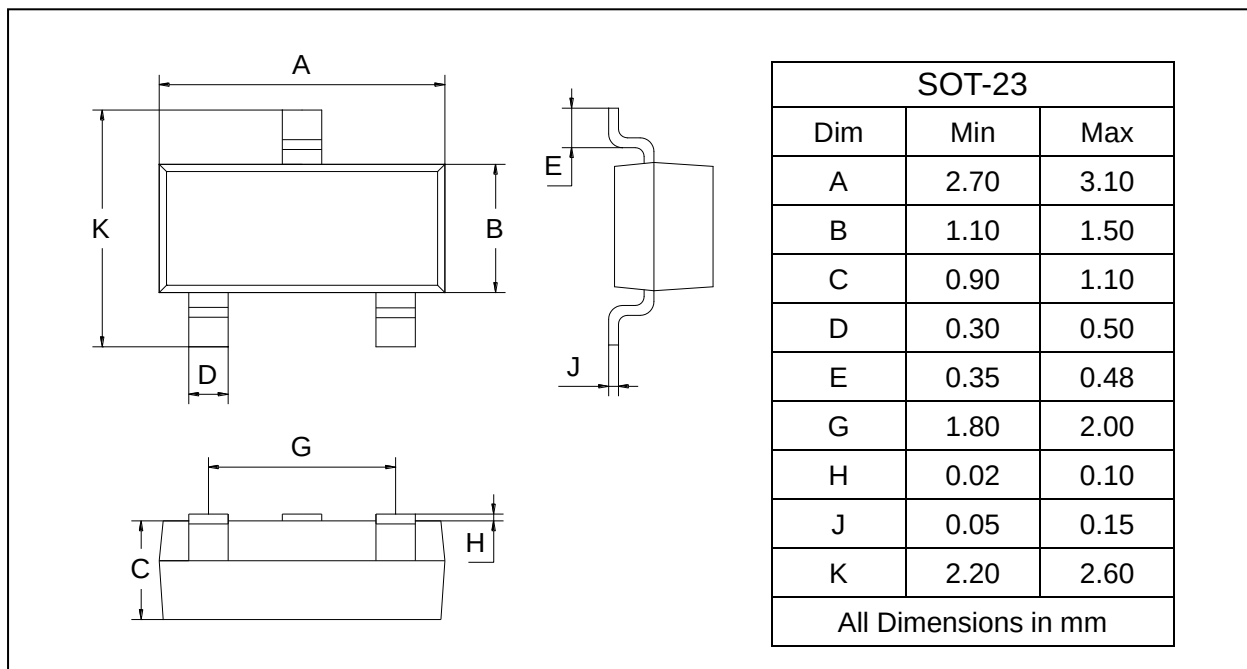
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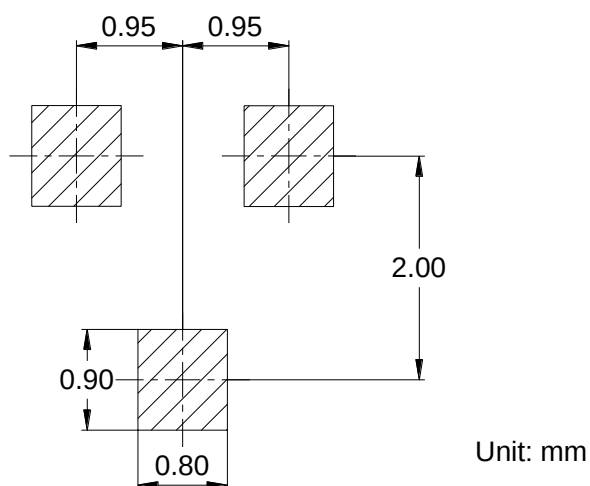
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
KTA1298	SOT-23	3000 pcs / Tape & Reel