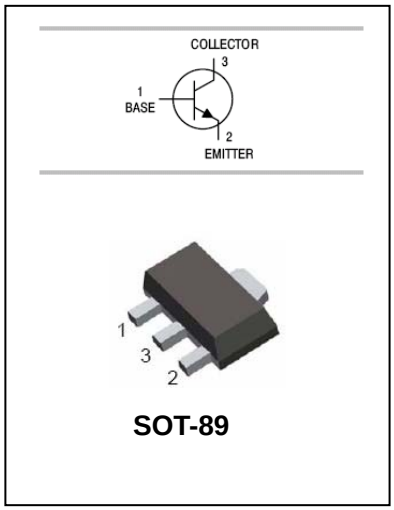
Power Transistor KTD1898

FEATURES

- High V_{CEO},V_{CEO}=80V.
- High I_C,I_C=1A(DC).
- Good H_{FE} Linearity.
- Low $V_{CE(sat)}$.
- Complement the 2SB1260.

Lead-free



SOT-89

APPLICATIONS

- NPN silicon transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
KTD1898	DF	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
I_C	Collector Current -pulse	2	A
P_C	Collector Dissipation	0.5 1	W W
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

Note1:Mounted on ceramic substrate(250mm^2*0.8t)

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	80			V
Collector cut-off current	I_{CBO}	V_{CB}=80V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=3V,I_C=0.5A	70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B= 20mA			0.4	V
Transition frequency	f_T	V_{CE}=10V, I_C= -50mA, f=100MHz		100		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		20		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	R
Range	70-140	120-240	200-400

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

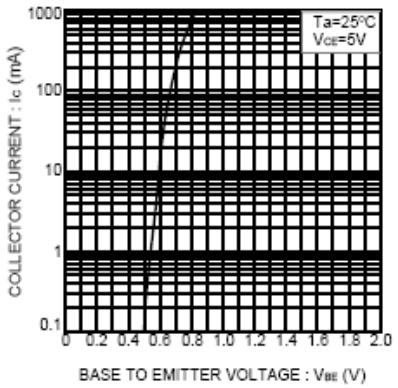

Fig.1 Grounded emitter propagation characteristics

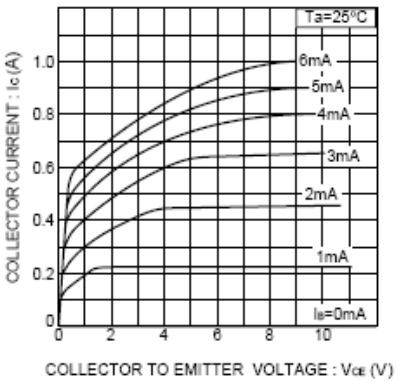

Fig.2 Grounded emitter output characteristics

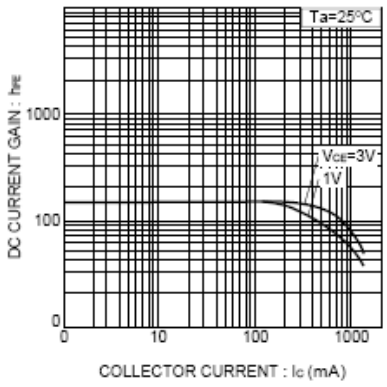

Fig.3 DC current gain vs. collector current

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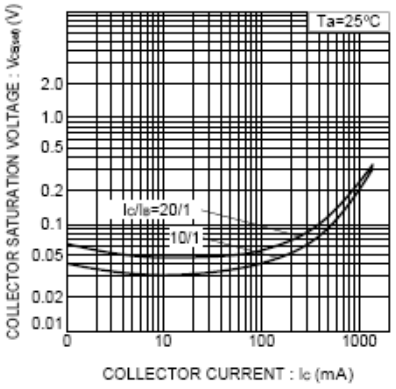

Fig.4 Collector-emitter saturation voltage vs. collector current

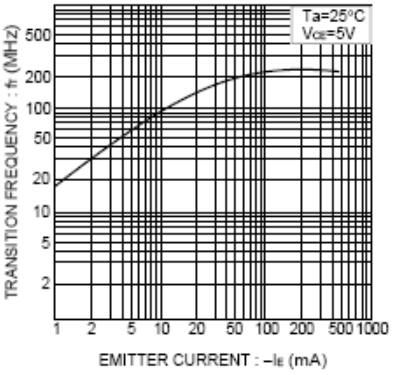

Fig.5 Gain bandwidth product vs. emitter current

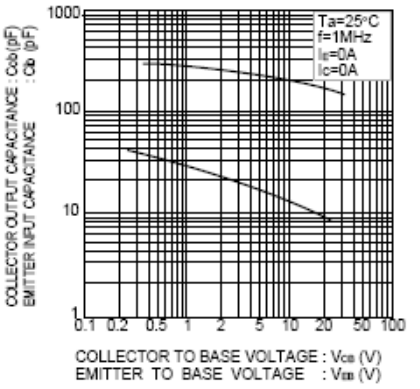

Fig.6 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

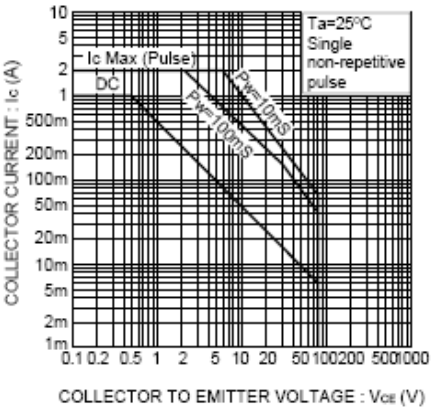

Fig.8 Safe operating area

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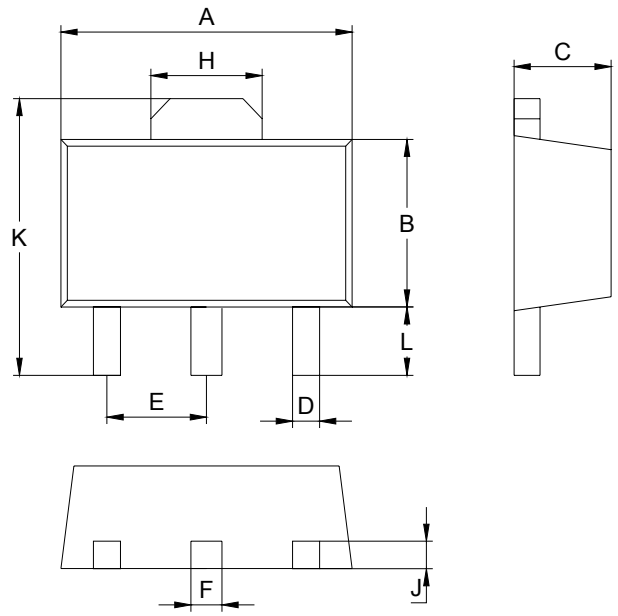
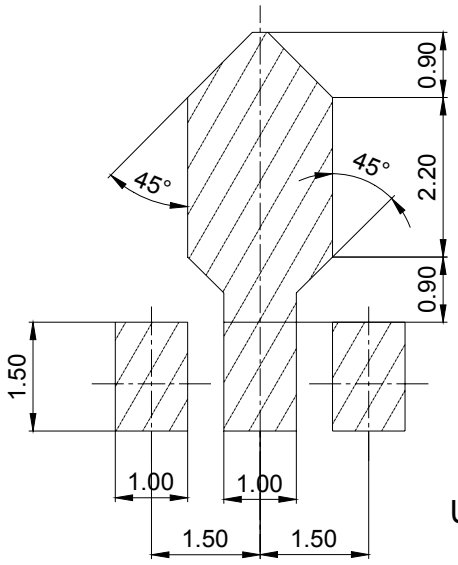
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
KTD1898	SOT-89	1000/Tape&Reel