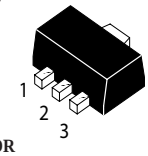
WEITRON

KTD1898

Epitaxial Planar NPN Transistors

Lead(Pb)-Free

SOT-89



1. BASE
2. COLLECTOR
3. EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	100	Vdc
Collector-Emitter Voltage	V_{CEO}	80	Vdc
Emitter-Base Voltage	V_{EBO}	5	Vdc
Collector Current	I_C	1	A(DC)
	I_{CP}	2	A (Pulse)*
Collector Power Dissipation	P_C	0.5	W
Junction Temperature, Storage Temperature	T_j, Tstg	150, -55 to +150	°C

* Single pulse Pw = 20ms

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage(Ic=100uA)	BV_{CBO}	100	-	-	V
Collector-Emitter Breakdown Voltage(Ic=1mA)	BV_{CEO}	80	-	-	V
Emitter-Base Breakdown Voltage(I_E=100uA)	BV_{EBO}	5	-	-	V
Collector Cutoff Current(V_{CB}=80V)	I_{CBO}	-	-	1	uA
Emitter Cutoff Current(V_{EB}=4V)	I_{EBO}	-	-	1	uA

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise noted) (Countinued)

Parameter	Symbol	Min	Typ	Max	Unit
DC Current Gain (V_{CE}=3V, Ic=500mA)	h_{FE}	70	-	400	-
Collector-Emitter Saturation Voltage (Ic=500mA, I_B=20mA)	$V_{CE(sat)}$	-	-	0.4	V
Transition Frequency (V_{CE}=10V, Ic=50mA, f=100MHz)	f_T	-	100	-	MHz
Output Capacitance (V_{CB}=10V, I_E=0A, f=1MHz)	Cob	-	20	-	pF

CLASSIFICATION OF h_{FE}

Marking	ZO	ZY	ZG
Rank	O	Y	GR
Range	70-140	120-240	200-400

ELECTRICAL CHARACTERISTIC CURVES

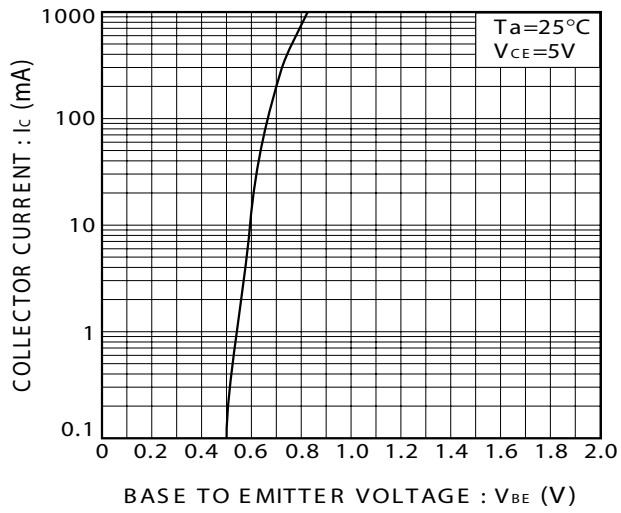


FIG.1 Grounded Emitter Propagation Characteristics

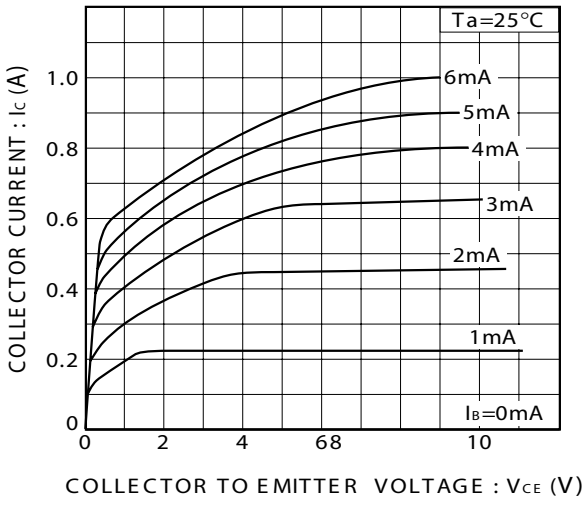


FIG.2 Grounded Emitter Output Characteristics

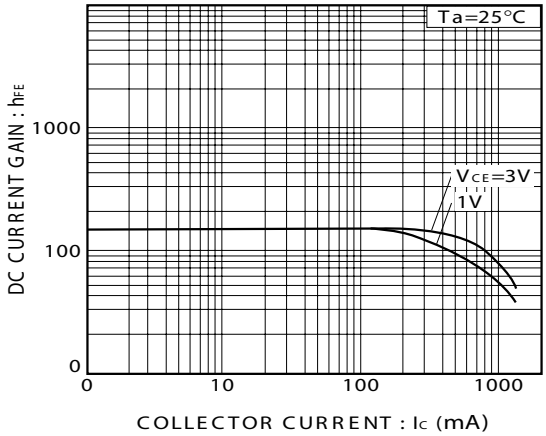


FIG.3 DC Current Gain vs. Collector Current

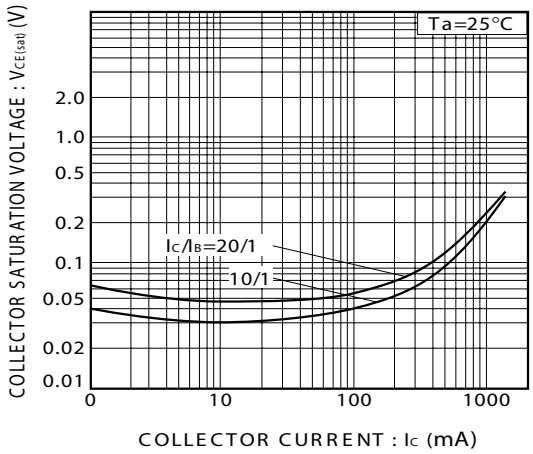


FIG.4 Collector-Emitter Ssaturation Voltage vs. Collector Current

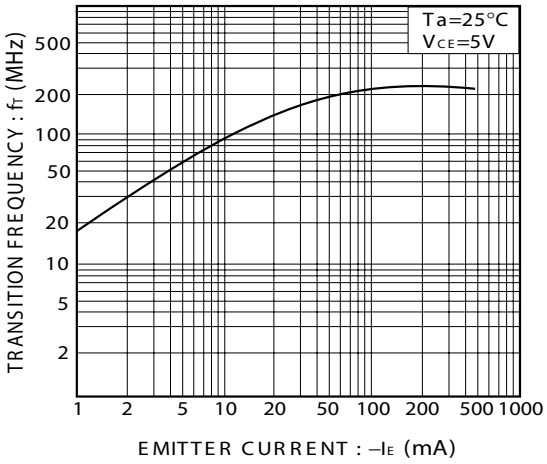


FIG.5 Gain Bandwidth Product vs. Emitter Current

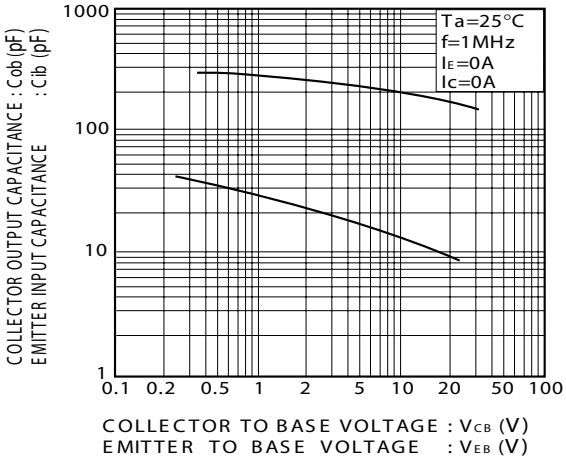


FIG.6 Collector Output Capacitance vs. Collector-Base Voltage
Emitter Input Capacitance vs. Emitter-Base Voltage

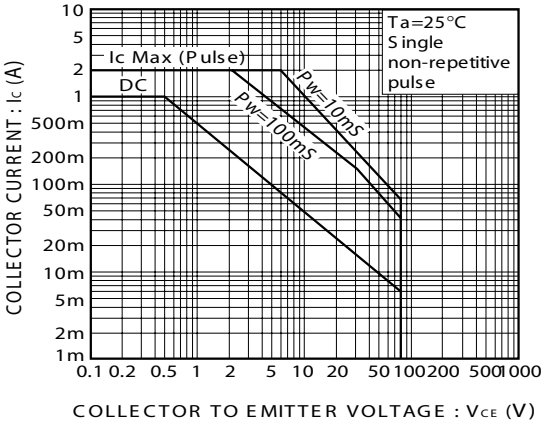
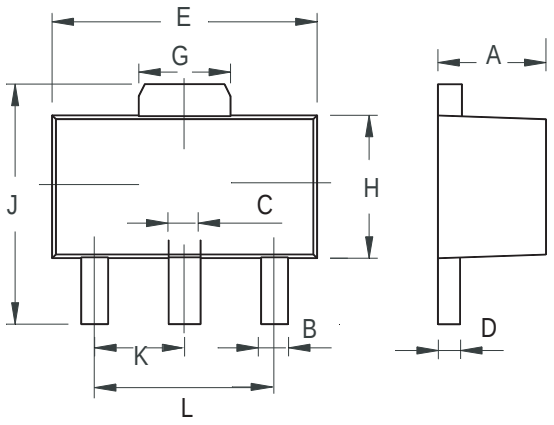


FIG.7 Safe Operating Area

SOT-89 Outline Dimensions

unit:mm



SOT-89		
Dim	**Min**	**Max**
A	1.400	1.600
B	0.320	0.520
C	0.360	0.560
D	0.350	0.440
E	4.400	4.600
G	1.400	1.800
H	2.300	2.600
J	3.940	4.250
K	1.500TYP	
L	2.900	3.100