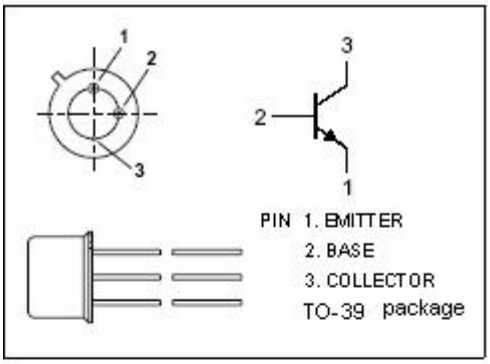
isc Silicon NPN Planar Epitaxial Overlay Transistor 2N3866

DESCRIPTION

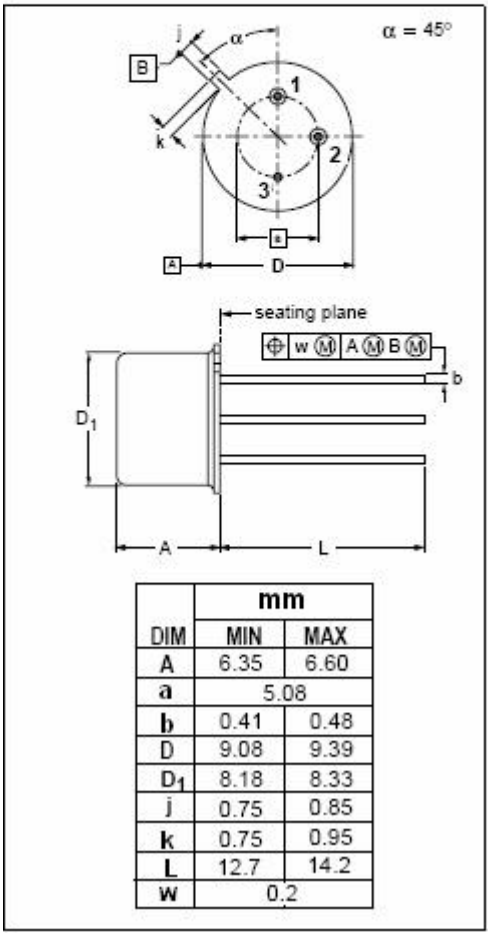
- High Gain Bandwidth Product
  f_T= 500 MHz (Min.)
- Low Collector Capacitance;
  C_C = 3 pF Max.

Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in output, driver or pre-driver stages in VHF and UHF equipment.



DIM	mm MIN	MAX
A	6.35	6.60
a	5.08	
b	0.41	0.48
D	9.08	9.39
D_1	8.18	8.33
j	0.75	0.85
k	0.75	0.95
L	12.7	14.2
w	0.2	

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	55	V
V_{CER}	Collector-Emitter Voltage R_{BE}= 10Ω	55	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Collector Current-Continuous	0.4	A
P_C	Collector Power Dissipation @T_C=25℃	3.5	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~+200	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 5mA; I_B= 0	30			V
$V_{(BR)CER}$	Collector-Emitter Breakdown Voltage	I_C= 5mA; R_{BE}= 10Ω	55			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 0.1mA; I_E= 0	55			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 0.1mA; I_C= 0	3.5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 100mA; I_B= 20mA			1.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 28V; I_B= 0			20	μA
h_{FE-1}	DC Current Gain	I_C= 50mA ; V_{CE}= 5V	10		200	
h_{FE-2}	DC Current Gain	I_C= 360mA ; V_{CE}= 5V	5			
f_T	Current-Gain—Bandwidth Product	I_C= 50mA; V_{CE}= 15V,f = 200MHz	500			MHz
C_C	Output Capacitance	I_E= 0; V_{CB}= 28V; f= 1MHz			3	pF