

isc Silicon NPN Planar Epitaxial Overlay Transistor
2N3866
DESCRIPTION

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

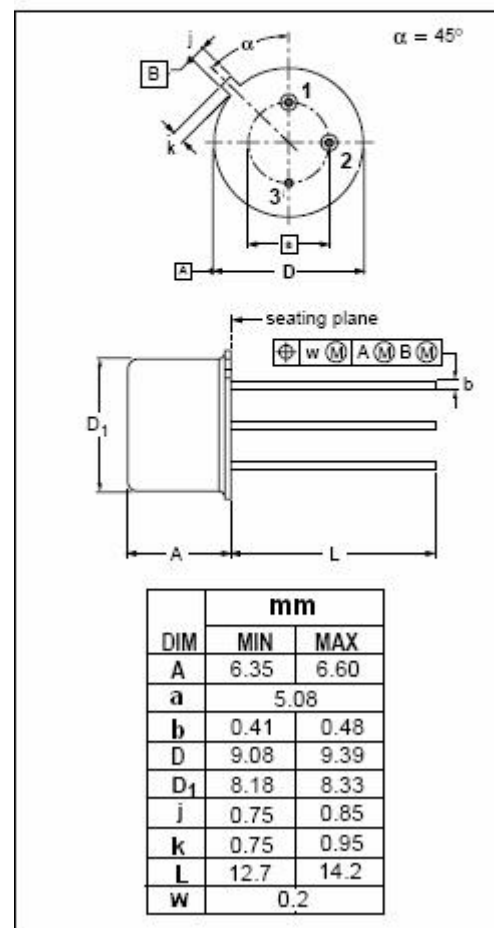
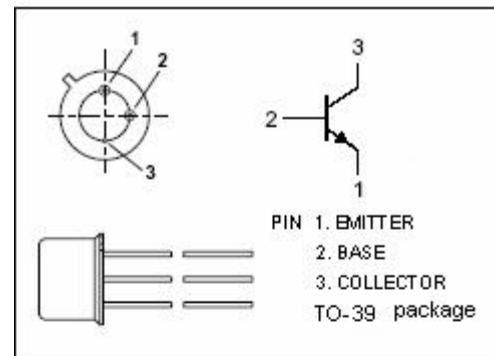
Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	55	V
V_{CER}	Collector-Emitter Voltage $R_{BE} = 10 \Omega$	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 @ $T_C = 25^\circ\text{C}$	3.5	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~+200	$^\circ\text{C}$



isc Silicon NPN Planar Epitaxial Overlay Transistor**2N3866****ELECTRICAL CHARACTERISTICS****T_C=25°C 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} = 10 Ω	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	μ A
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

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