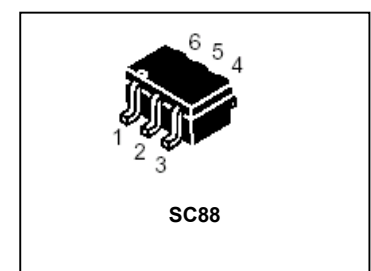


Silicon NPN Epitaxial Planer Transistor(Tr1)

Silicon PNP Epitaxial Planer Transistor(Tr2)

L4601DW1T1



● Tr1

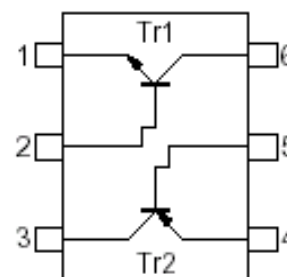
MAXIMUM RATINGS

Parameter	Symbol	Ratings	Unit
Collector-Emitter Voltage	V_{CEO}	50	V
Collector-Base Voltage	V_{CBO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector current-continuoun	IC	150	mAdc

● Tr2

MAXIMUM RATINGS

Parameter	Symbol	Ratings	Unit
Collector-Emitter Voltage	V_{CEO}	-50	V
Collector-Base Voltage	V_{CBO}	-60	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector current-continuoun	IC	-150	mAdc



THERMAL CHARATEERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board, (1) $T_A=25^{\circ}C$	P_D	380	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	328	$^{\circ}C/W$
Junction and Storage Temperature	T_j, T_{stg}	-55 to +150	$^{\circ}C$

DEVICE MARKING

L4601DW1T1=5C

● Tr1

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (IC=1mA)	V(BR)CEO	50	-	-	V
Emitter-Base Breakdown Voltage (IE=50 μ A)	V(BR)EBO	6	-	-	V
Collector-Base Breakdown Voltage (IC=50 μ A)	V(BR)CBO	60	-	-	V
Collector Cutoff Current (VCB=60V)	ICBO	-	-	0.1	μ A
EMITTER CUTOFF CURRENT VEB=7V	IEBO	-	-	0.1	μ A

ON CHARACTERISTICS

DC Current Gain (IC=1mA, VCE=6.0V)	Hfe	120	-	560	
Collector-Emitter Saturation Voltage (IC=50mA, IB=5mA)	VCE(SAT)	-	-	0.4	V

SMALL-SIGNAL CHARACTERISTICS

Current-Gain-Bandwidth Product (VCE = 12.0V; IE =-2.0 mA, f=100MHZ)	Ft	-	180	-	MHz
Output Capacitance(VCE=12V, f=1.0MHz)	Cobo	-	2	3.5	Pf

● Tr2

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

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (IC=-1mA)	V(BR)CEO	-50	-	-	V
Emitter-Base Breakdown Voltage (IE=-50 μ A)	V(BR)EBO	-6	-	-	V
Collector-Base Breakdown Voltage (IC=-50 μ A)	V(BR)CBO	-60	-	-	V
Collector Cutoff Current (VCB=-60V)	ICBO	-	-	-0.1	μ A
Emitter Cutoff Current (VBE=-6V)	IEBO	-	-	-0.1	μ A

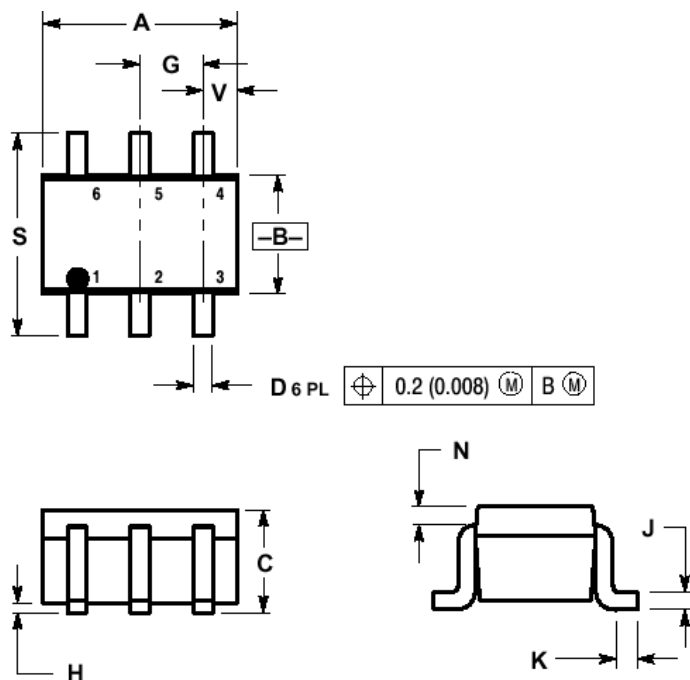
ON CHARACTERISTICS

DC Current Gain ($I_C = -1\text{mA}$, $V_{CE} = -6.0\text{V}$)	Hfe	120	-	560	
Collector-Emitter Saturation Voltage ($I_C = -50\text{mA}$, $I_B = -5\text{mA}$)	VCE(SAT)	-	-	-0.5	V

SMALL-SIGNAL CHARACTERISTICS

Current-Gain-Bandwidth Product ($V_{CE} = -12.0\text{V}$; $I_E = 2.0\text{mA}$, $f = 300\text{MHz}$)	Ft	-	140	-	MHz
Output Capacitance($V_{CB} = -12\text{V}$, $f = 1.0\text{MHz}$)	Cobo	-	4	5	Pf

PACKAGE DIMENSIONS SC-88



NOTES:

- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	—	0.004	—	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20
V	0.012	0.016	0.30	0.40