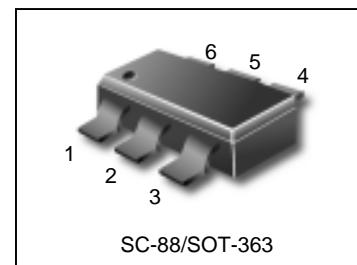


# Silicon NPN Epitaxial Planer Transistor

**L4501DW1T1**

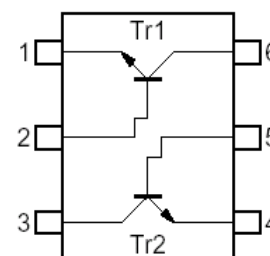
## Feature

Pb-Free Package is available.



## MAXIMUM RATINGS

Parameter	Symbol	Ratings	Unit
Collector-Emitter Voltage	$V_{CEO}$	50	V
Collector-Base Voltage	$V_{CBO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	7	V
Collector current-continuoun	$I_C$	150	mAdc



## THERMAL CHARATEERISTICS

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

## DEVICE MARKING

L4501DW1T1=5H

## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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## OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ( $I_C=1\text{mA}$ )	$V_{(BR)CEO}$	50	-	-	V
Emitter-Base Breakdown Voltage ( $I_E=50\ \mu\text{A}$ )	$V_{(BR)EBO}$	7	-	-	V
Collector-Base Breakdown Voltage ( $I_C=50\ \mu\text{A}$ )	$V_{(BR)CBO}$	60	-	-	V
Collector Cutoff Current ( $V_{CB}=60\text{V}$ )	$I_{CBO}$	-	-	0.1	$\mu\text{A}$

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EMITTER CUTOFF CURRENT VEB=7V	IEBO	-	-	0.1	μA
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### 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

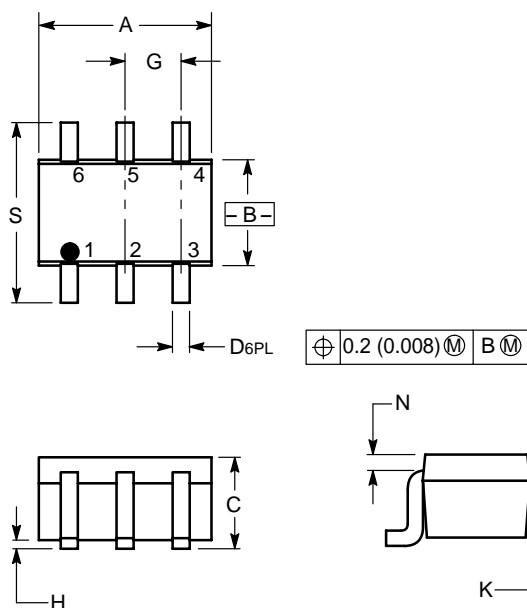
Current-Gain-Bandwidth Product (VCE = 12.0V; IE = -2.0 mA, f=100MHZ)	Ft	-	180	-	MHz
Output Capacitance(VCE=12V, f=1.0MHz)	Cobo	-	2	3.5	Pf

### ORDERING INFORMATION

Device	Marking	Shipping
L4501DW1T1	5H	3000/Tape&Reel
L4501DW1T1G	5H (Pb-Free)	3000/Tape&Reel

# L4501DW1T1

SC-88/SOT-363



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. 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

- PIN 1. EMITTER 1
- 2. BASE 1
- 3. COLLECTOR 2
- 4. EMITTER 2
- 5. BASE 2
- 6. COLLECTOR 1

