

isc Silicon NPN Darlington Power Transistor

KTD1510

DESCRIPTION

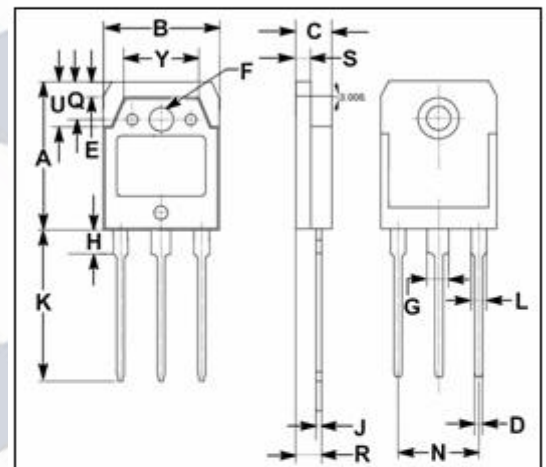
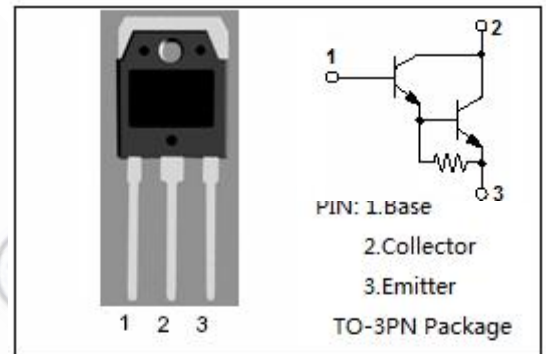
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 2.5V(\text{Max}) @ I_C = 7A$
- High DC Current Gain
: $h_{FE} = 5000(\text{Min}) @ I_C = 7A, V_{CE} = 4V$
- Complement to Type KTB2510

APPLICATIONS

- High power amplifier applications
- Recommended for 60W audio amplifier output stage

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

isc Silicon NPN Darlington Power Transistor**KTD1510****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=30\text{mA}; I_B=0$	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=7\text{A}; I_B=7\text{mA}$			2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=7\text{A}; I_B=7\text{mA}$			3	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=160\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			100	μA
h_{FE}	DC Current Gain	$I_C=7\text{A}; V_{CE}=4\text{V}$	5000			
f_T	Current-Gain—Bandwidth Product	$I_C=2\text{A}; V_{CE}=12\text{V}$		50		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		230		pF