

HIGH POWER AMPLIFIER DARLINGTON TRANSISTOR

KTD1640 is designed to suit for audio amplifier output stage. It has good quality sound with complementary Item.

FEATURES

- Complementary to KTB2640
- High power Amplifier for 130W Audio
- High DC Current Gain $h_{FE} = 6,500 \sim 30,000$ ($V_{CE}=4V$, $I_C=10A$)
- Wide SOA

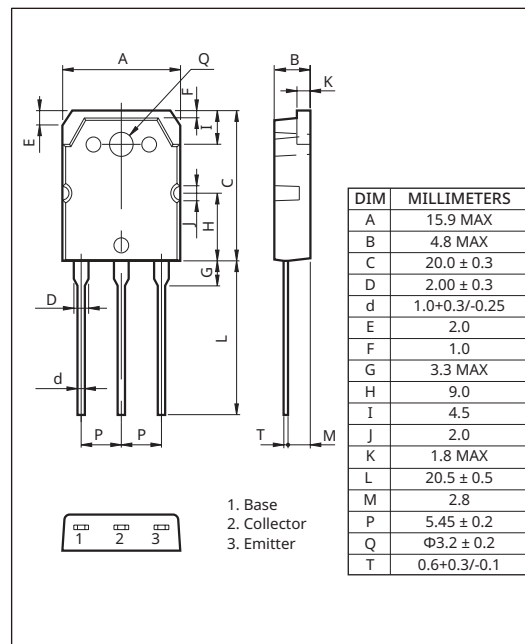
APPLICATIONS

- Audio Amplifier Output Stage
- Series Regulator
- General Purpose

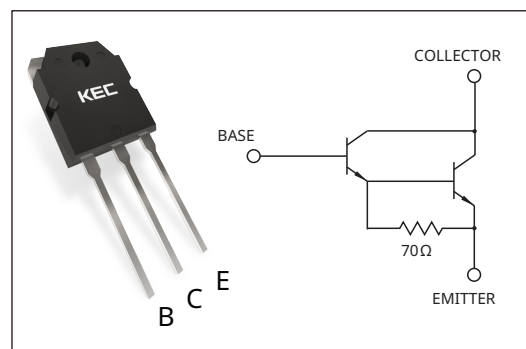
ORDERING INFORMATION

PART NUMBER	QTY PER TUBE	CARTON BOX
KTD1640	30pcs	1,800pcs

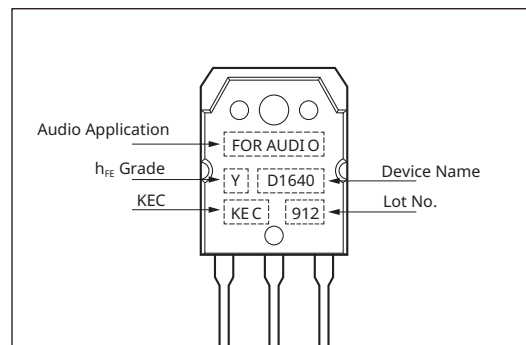
PACKAGE DIMENSION(TO-3P(N))



PIN CONFIGURATION



MARKING CODE



PRODUCT DATASHEET

Darlington Transistor - KTD1640

MAXIMUM RATINGS (T_A=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CBO}	150	V
Collector-Emitter Voltage	V _{CEO}	150	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	15	A
Base Current	I _B	1	A
Collector Power Dissipation (T _C =25°C)	P _C	130	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 ~ 150	°C

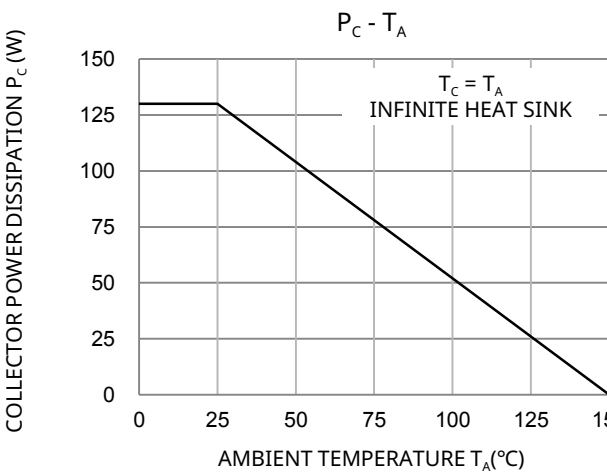
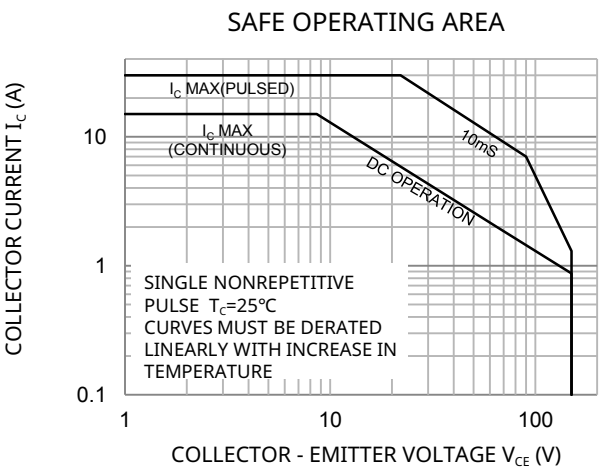
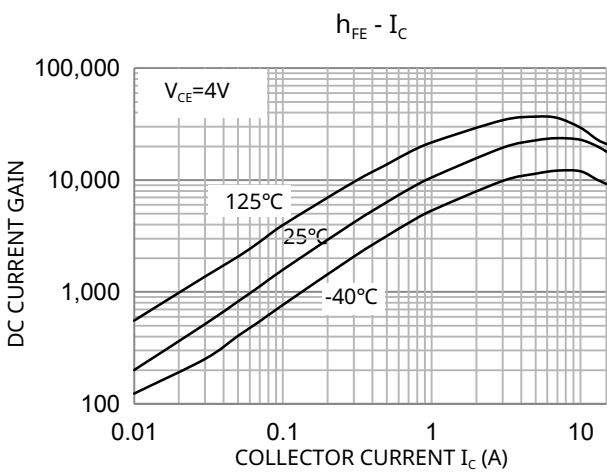
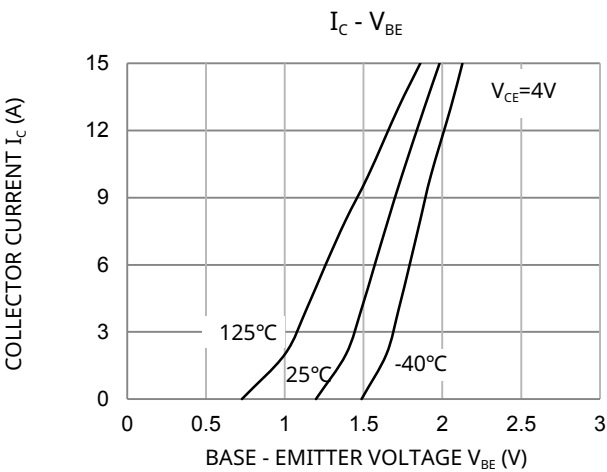
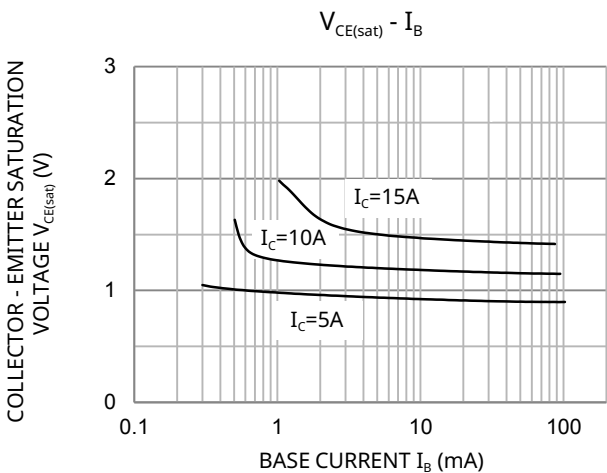
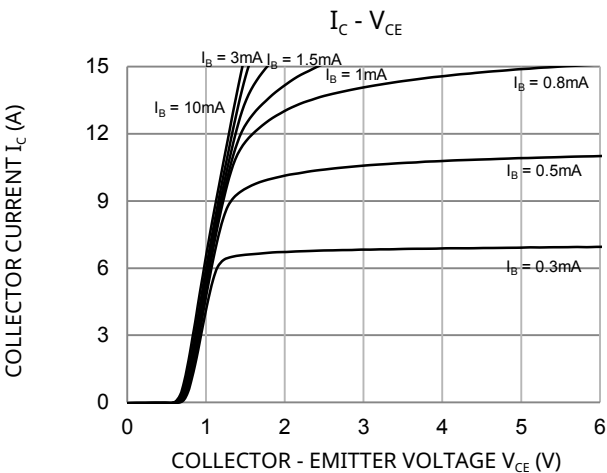
ELECTRICAL CHARACTERISTICS (T_A=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} =150V, I _E =0	-	-	100	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} =5V, I _C =0	-	-	100	μA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =30mA, I _B =0	150	-	-	V
DC Current Gain	h _{FE} (Note)	V _{CE} =4V, I _C =10A	6,500	-	30,000	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =10A, I _B =10mA	-	-	2.5	V
Base-Emitter Saturation Volage	V _{BE(sat)}	I _C =10A, I _B =10mA	-	-	3.0	V
Transition Frequency	f _T	V _{CE} =12V, I _C =2A	-	70	-	MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V, f=1MHz, I _E =0	-	120	-	pF
Thermal Resistance	R _{th(j-c)}	Junction to case	-	-	1.25	°C/W

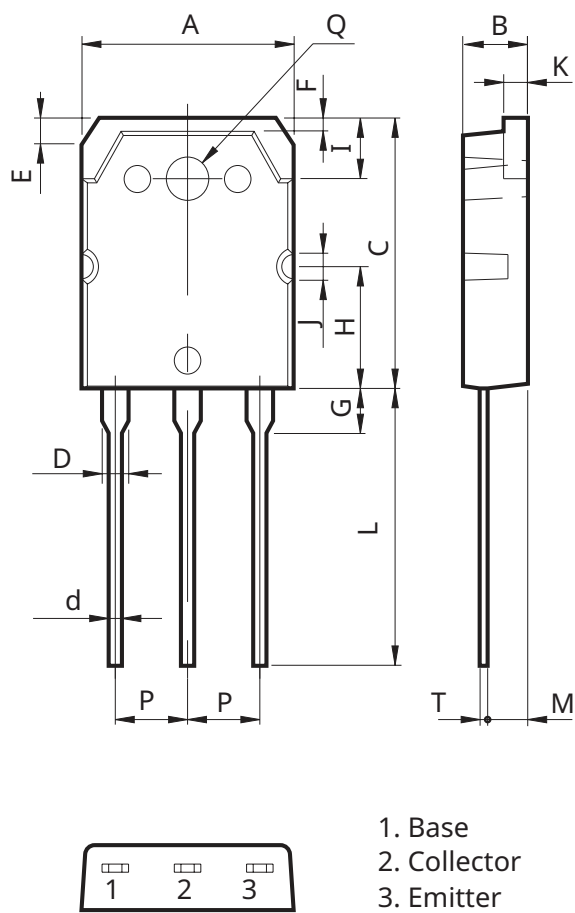
Note : hFE Classification P: 6,500 ~ 20,000 Y : 15,000 ~ 30,000

PRODUCT DATASHEET

Darlington Transistor - KTD1640



PACKAGE DIMENSION(TO-3P(N))



DIM	MILLIMETERS
A	15.9 MAX
B	4.8 MAX
C	20.0 ± 0.3
D	2.00 ± 0.3
d	1.0+0.3/-0.25
E	2.0
F	1.0
G	3.3 MAX
H	9.0
I	4.5
J	2.0
K	1.8 MAX
L	20.5 ± 0.5
M	2.8
P	5.45 ± 0.2
Q	Φ3.2 ± 0.2
T	0.6+0.3/-0.1

PRECAUTION ON USING KEC PRODUCTS

1. The products described in this data are intended to be used in general-purpose electronic equipment.
(Office equipment, telecommunication equipment, measuring equipment, home appliances)
2. When you intend to use these products with equipment or device which require an extremely high of reliability and special applications (such as automobile, air travel aerospace, transportation equipment, life support, system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard application intended, please be sure to consult with our sales representative in advance.
3. On designing your application, please use product within the ranges guaranteed by KEC for maximum rating, operating supply voltage range, heat radiation characteristics and other characteristics. User shall be responsible for failure or damage when used beyond the guaranteed ranges.
4. The technical information described in this data is limited to showing representative characteristics and applied circuit examples of the products and it does not constitute the warranting of industrial property, the granting of relative rights, or the granting of any license.
5. What are described in the data may be changed without any prior notice to reflect new technical development. Please confirm that you have received the latest product standards or specification before final design, purchase or use.
6. Although KEC is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. KEC shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by KEC.

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