

Low Saturation Bipolar TRANSISTOR

KTA1545W is designed to suit for General purpose application, switching application, supply line switching circuit application.

FEATURES

- Low Collector-Emitter Saturation Voltage
- High Current Capability
- Improved device reliability due to reduced heat generation

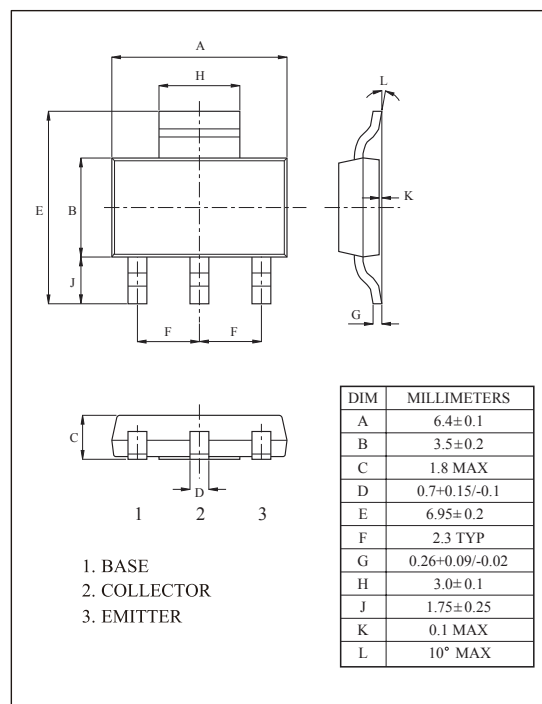
APPLICATIONS

- GENERAL PURPOSE APPLICATION
- SWITCHING APPLICATION
- SUPPLY LINE SWITCHING CIRCUIT
- BATTERY MANAGEMENT APPLICATION
- DC/DC CONVERTER APPLICATION
- MOSFET DRIVER APPLICATION

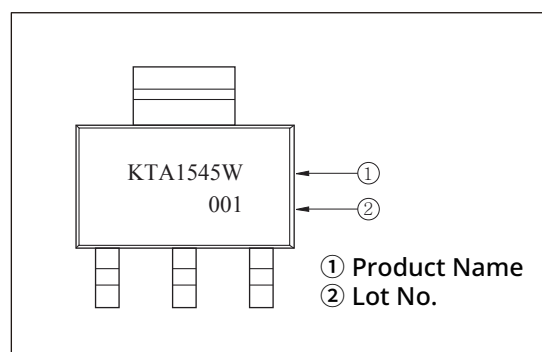
ORDERING INFORMATION

PART NUMBER	QTY PER REEL	INER CASE	CARTON BOX
KTA1545W-RTK/H	4,000	8,000	32,000

PACKAGE DIMENSION (SOT-223(1))



MARKING CODE



PRODUCT DATASHEET

Epitaxial Planar Transistor - KTA1545W

MAXIMUM RATING (T_a=25°C)

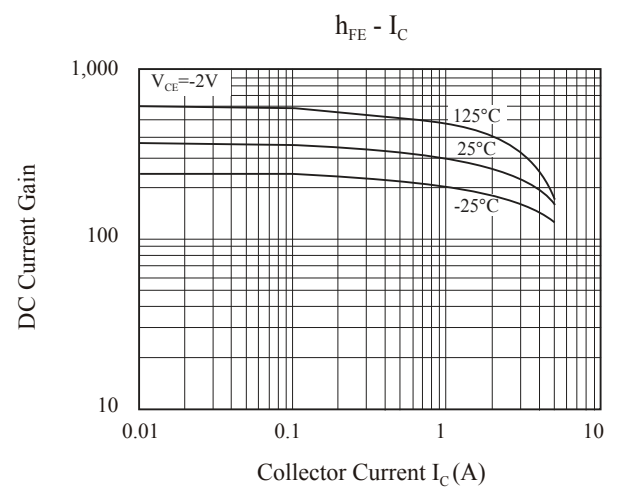
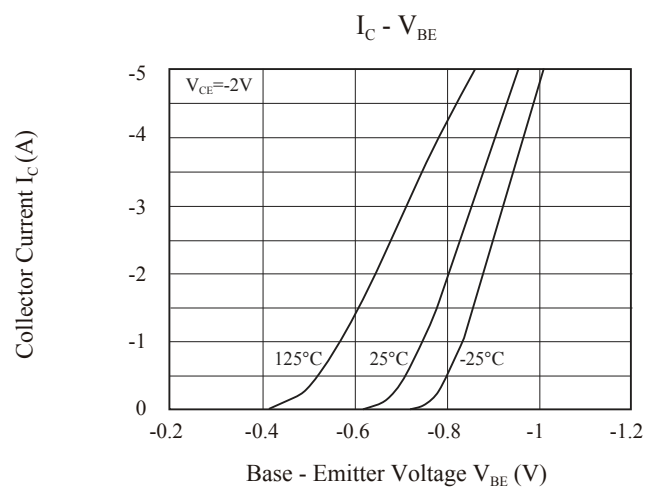
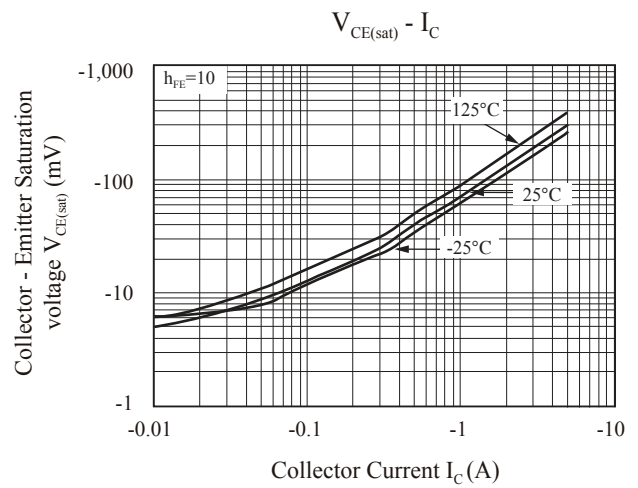
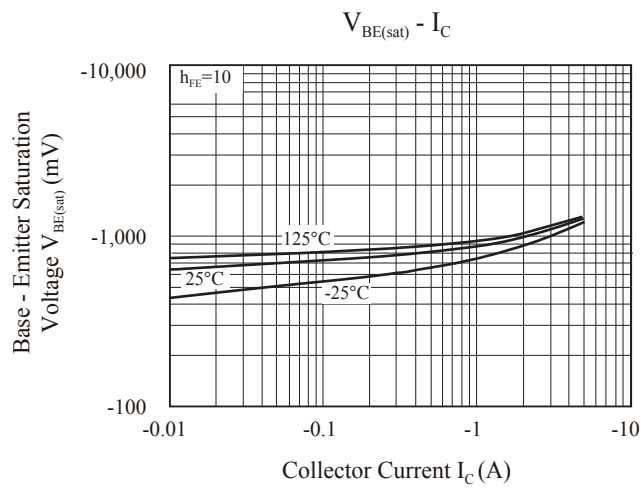
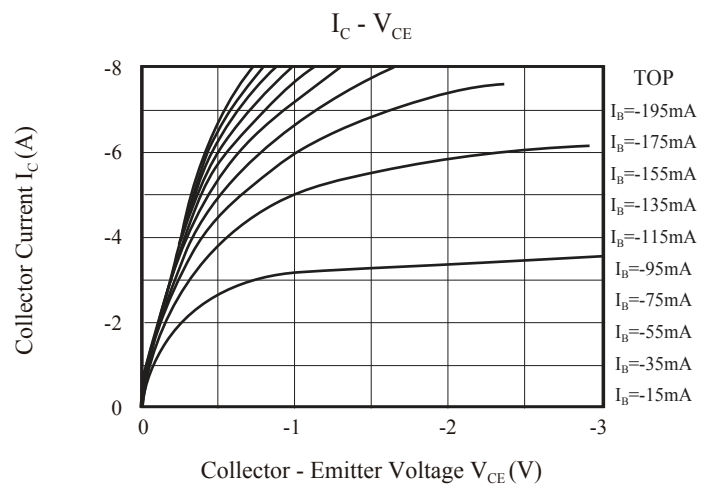
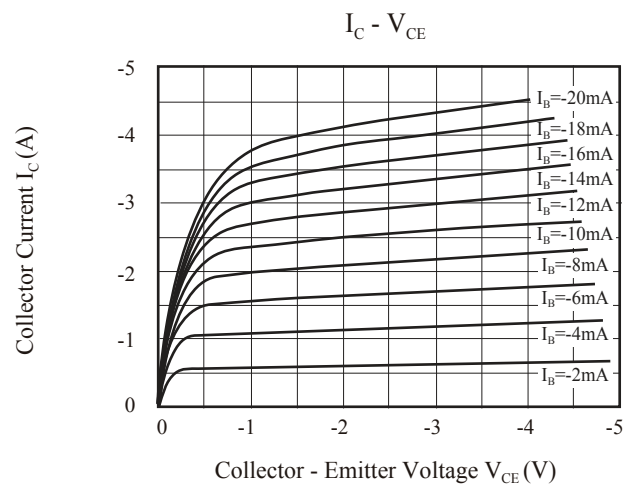
CHARACTERISTICS		SYMBOL	RATING	UNIT
Collector - Base Voltage		V _{CBO}	-40	V
Collector - Emitter Voltage		V _{CEO}	-40	V
Emitter- Base Voltage		V _{EBO}	-6	V
Output Current	DC	I _C	-5	A
	Pulse	I _{CP}	-10	A
Base Current		I _B	-2	A
Power Dissipation		P _C	1.35	W
Junction Temperature		T _J	150	°C
Storage Temperature		T _{stg}	-65~150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

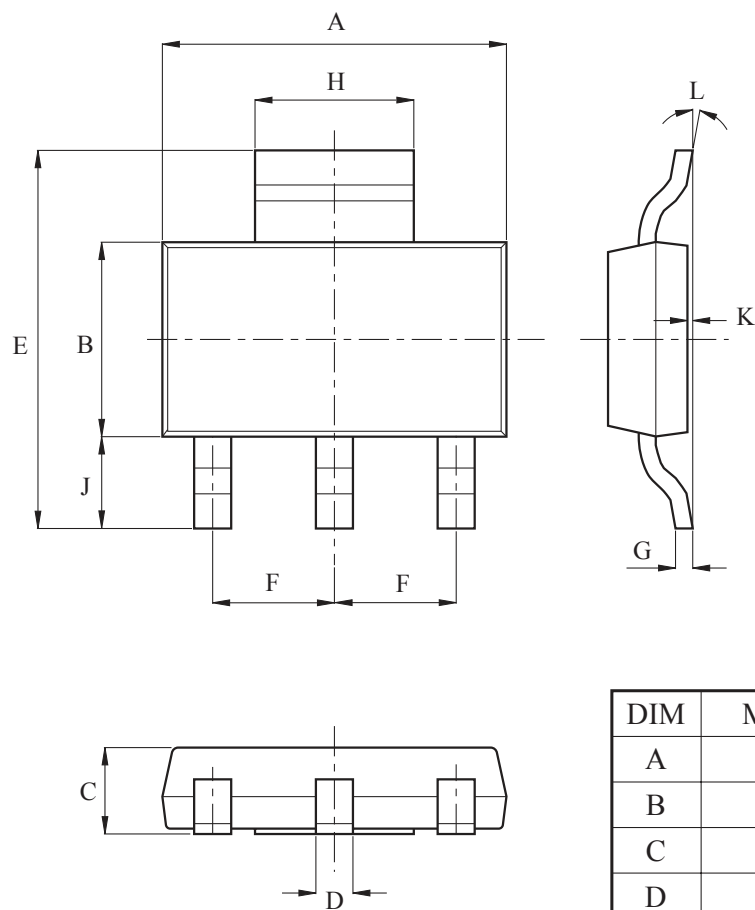
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector - Base Breakdown Voltage	V _{(BR)CBO}	I _C =-100uA, I _E =0A	-40	-	-	V
Collector - Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0A	-40	-	-	V
Emitter- Base Breakdown Voltage	V _{(BR)EBO}	I _E =-100uA, I _C =0A	-6	-	-	V
Collector - Base Cut off Current	I _{CBO}	V _{CB} =-30V, I _E =0A	-	-	-100	nA
Emitter- Base Cut off Current	I _{EBO}	V _{EB} =-5V, I _E =0A	-	-	-100	nA
DC Current Gain	h _{FE} (1)	V _{CE} =-2V, I _C =-500mA	250	350	-	
	h _{FE} (2)	V _{CE} =-2V, I _C =-1A	200	300	-	
	h _{FE} (3)	V _{CE} =-2V, I _C =-2A	150	250	-	
	h _{FE} (4)	V _{CE} =-2V, I _C =-5A	50	150	-	
Collector - Emitter Saturation Voltage	V _{CE(sat)} (1)	I _C =-500mA, I _B =-5mA	-	-80	-130	mV
	V _{CE(sat)} (2)	I _C =-1A, I _B =-10mA	-	-120	-225	mV
	V _{CE(sat)} (3)	I _C =-2A, I _B =-200mA	-	-110	-170	mV
	V _{CE(sat)} (4)	I _C =-5A, I _B =-500mA	-	-250	-385	mV
Base - Emitter Saturation Voltage	V _{BE(sat)}	I _C =-5A, I _B =-500mA	-	-	-1.3	V
Base - Emitter Turn-On Voltage	V _{BE(on)}	V _{CE} =-2V, I _C =-2A	-	-	-1.25	V
Transition Frequency	f _T	V _{CE} =-10V, I _C =-100mA	60	120	-	MHz
Collector - Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz, I _E =0	-	90	105	pF
Thermal Resistance	R _{th(j-a)}	Junction to ambient	-	-	92	°C/W

PRODUCT DATASHEET

Epitaxial Planar Transistor - KTA1545W



PACKAGE INFORMATION (SOT-223(1))



DIM	MILLIMETERS
A	6.4±0.1
B	3.5±0.2
C	1.8 MAX
D	0.7+0.15/-0.1
E	6.95±0.2
F	2.3 TYP
G	0.26+0.09/-0.02
H	3.0±0.1
J	1.75±0.25
K	0.1 MAX
L	10° MAX

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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