KEC

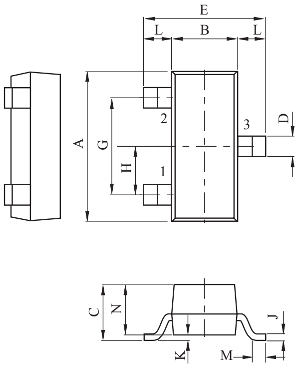
SEMICONDUCTOR
TECHNICAL DATA

KTC8050S
EPITAXIAL PLANAR NPN TRANSISTOR

HIGH CURRENT APPLICATION.

FEATURE

- Complementary to KTC8550S.
- Suffix **U** : Qualified to AEC-Q101.
  ex) KTC8050S-C-RTK/P**U**



Unit : mm

DIM	MILLIMETERS
A	2.93 ± 0.20
B	1.30+0.20/-0.15
C	1.0+0.3/-0.1
D	0.40+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90 ± 0.10
H	0.95 ± 0.10
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55 ± 0.10
M	0.20 MIN
N	1.00+0.20/-0.10

1. EMITTER
2. BASE
3. COLLECTOR

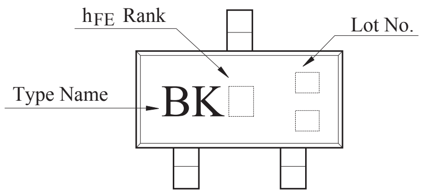
SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	800	mA
Emitter Current	I_E	-800	mA
Collector Power Dissipation	P_C *	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

* P_C : Package Mounted On 99.5% Alumina (10×8×0.6mm)

Marking



ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=15V, I_E=0	-	-	50	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=0.5mA, I_E=0	35	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	30	-	-	V
DC Current Gain	$h_{FE}(1)$ (Note)	V_{CE}=1V, I_C=50mA	100	-	300	
	$h_{FE}(2)$	V_{CE}=1V, I_C=350mA	60	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=20mA	-	-	0.5	V
Base-Emitter Voltage	V_{BE}	V_{CE}=1V, I_C=500mA	-	-	1.2	V
Transition Frequency	f_T	V_{CE}=5V, I_C=10mA	-	120	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz, I_E=0	-	13	-	pF

Note : $h_{FE}(1)$ Classification C : 100 ~ 200, D : 150 ~ 300