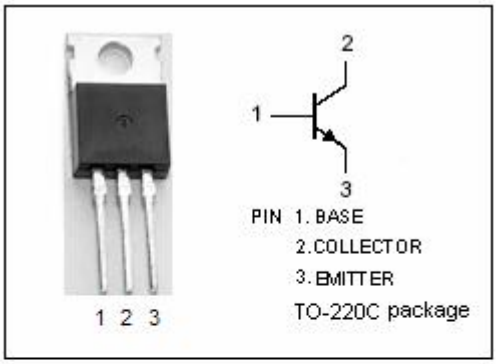
isc Silicon NPN Power Transistors KTC2238A

DESCRIPTION

- Low Saturation Voltage-
  : $V_{CE(sat)}$=1.5V(Max)@ (I_C= 0.5A, I_B= 50mA)
- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 180V(Min)
- Complement to Type KTA968A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

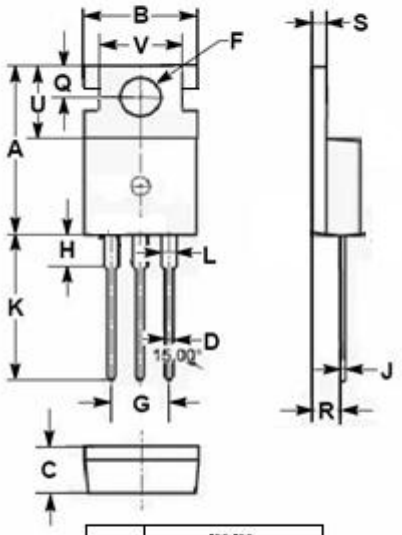
- Designed for high voltage and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_E	Emitter Current	1.5	A
P_C	Collector Power Dissipation T_C=25℃	25	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	63	℃/W



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	180			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 0.1mA; I_B= 0	180			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 0.5A; I_B= 50mA			1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 0.5A; V_{CE}= 5V			1.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 160V; I_E= 0			1	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1	uA
h_{FE}	DC Current Gain	I_C= 0.1A ; V_{CE}= 5V	70		240	
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V,f_{test}= 1MHz		25		pF
f_T	Current-Gain—Bandwidth Product	I_C= 0.1A ; V_{CE}= 10V		100		MHz

◆ **h_{FE} Classifications**

O	Y
70-140	120-240