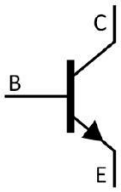
TO-92LM NPN Silicon NPN transistor in a TO-92LM Plastic Package.

KTA1023

Complementary pair with KTA1023.

High voltage application.

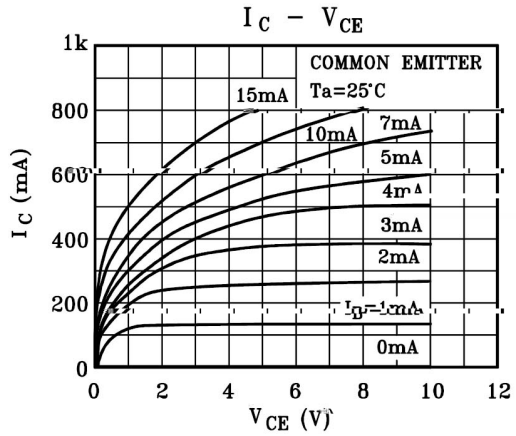


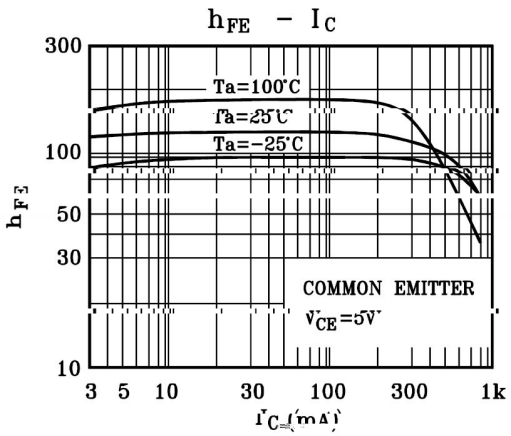
PIN1 Base PIN 2 Collector PIN 3 Emitter

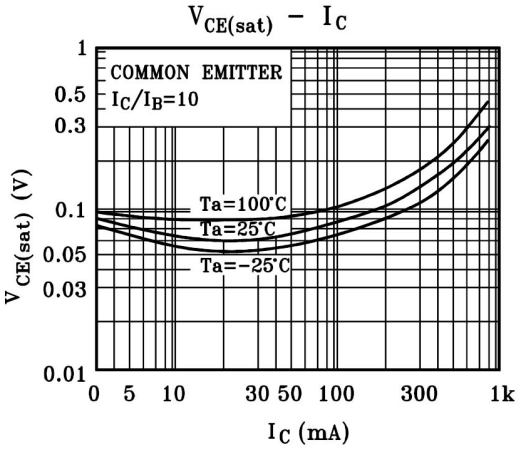
h_{FE} Classifications Symbol	O	Y
h_{FE} Range	80~160	120~240

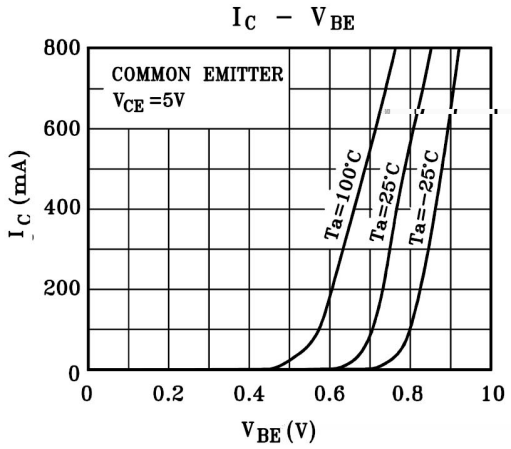
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	800	mA
Emitter Current - Continuous	I_E	-800	mA
Collector Power Dissipation	P_C	1.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55～150	

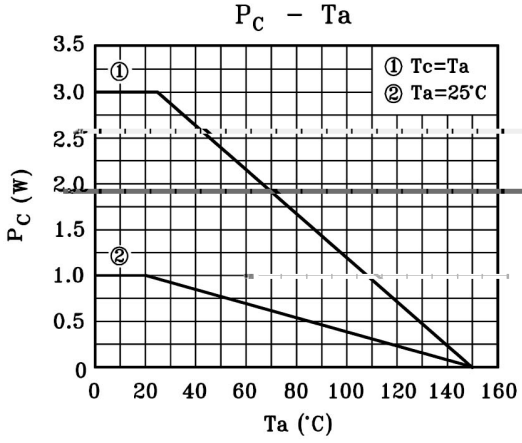
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	120			V
Collector to Base Breakdown Voltage	V_{EBO}	I_E=1mA I_C=0	5.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=120V I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=5.0V I_C=100mA	80		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA I_B=50mA			1.0	V
Base to Emitter Voltage	V_{BE}	V_{CE}=5.0V I_C=500mA			1.0	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=100mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz			30	pF

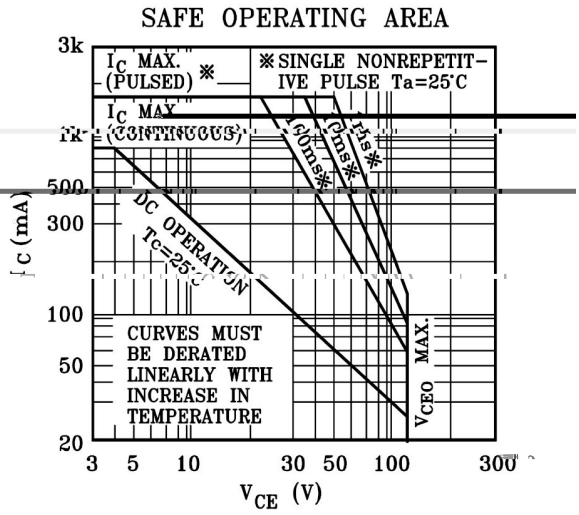

I_C – V_{CE}
COMMON EMITTER
Ta=25°C
15mA
10mA
7mA
5mA
4mA
3mA
2mA
I_B=1mA
0mA
I_C (mA)
V_{CE} (V)


h_{FE} – I_C
Ta=100°C
Ta=25°C
Ta=−25°C
COMMON EMITTER
V_{CE}=5V
h_{FE}
I_C (mA)


$V_{CE(sat)}$ – I_C
COMMON EMITTER
I_C/I_B=10
Ta=100°C
Ta=25°C
Ta=−25°C
$V_{CE(sat)}$ (V)
I_C (mA)

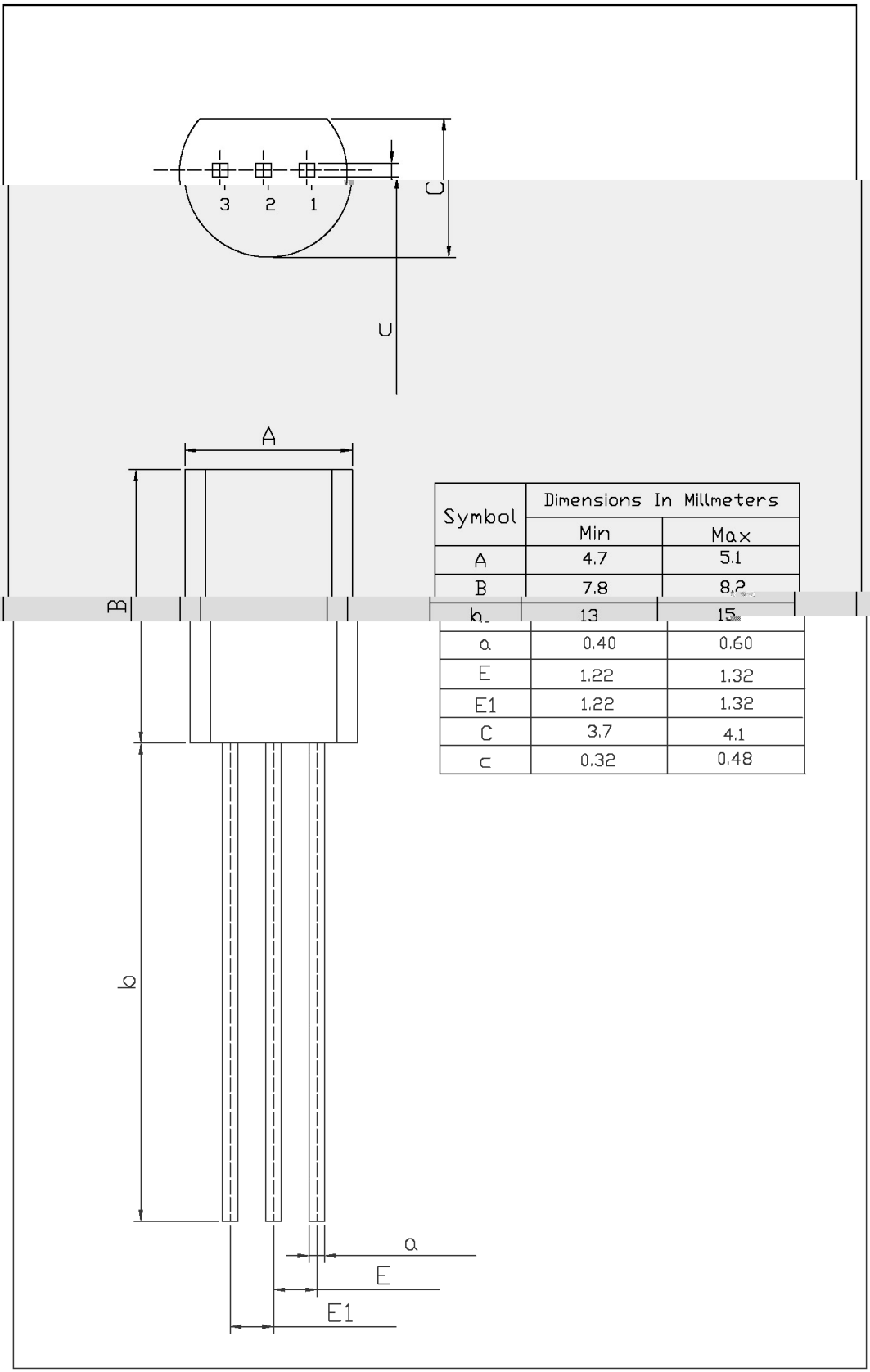

I_C – V_{BE}
COMMON EMITTER
V_{CE} =5V
Ta=100°C
Ta=25°C
Ta=−25°C
I_C (mA)
V_{BE} (V)


P_C – Ta
① Tc=Ta
② Ta=25°C
P_C (W)
Ta (°C)

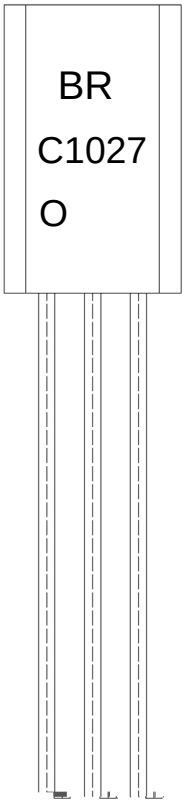

SAFE OPERATING AREA
I_C MAX. (PULSED) ※
I_C MAX (CONTINUOUS)
※SINGLE NONREPETITIVE PULSE Ta=25°C
1ms※
10ms※
50ms※
DC OPERATION
Tc=25°C
CURVES MUST BE DERATED LINEARLY WITH INCREASE IN TEMPERATURE
V_{CEO} MAX.
I_C (mA)
V_{CE} (V)

TO-92LM

Unit: mm



Symbol	Dimensions In Millmeters	
	Min	Max
A	4.7	5.1
B	7.8	8.2
b	13	15
a	0.40	0.60
E	1.22	1.32
E1	1.22	1.32
C	3.7	4.1
c	0.32	0.48



BR:

C1027

O: h_{FE}

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Note:

BR:	Company Code.
C1027:	Product Type.
O:	h_{FE} Classifications Symbol
****:	Lot No. Code,code change with Lot No.

			Note:
1	25 150	60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2	255±5	5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3		2 10 /sec.	3. Cooling Speed: 2~10 /sec.

270±5	10±1 sec.	Temp.:270±5 Time:10±1 sec

/ BULK

Package Type	Units					Dimension		(unit mm3)

/ AMMO

Package Type	Units					Dimension	(unit mm3)