

/ Descriptions

TO-220 PNP Silicon PNP transistor in a TO-220 Plastic Package.

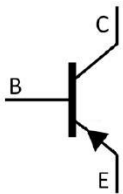
/ Features

KSD288
Complement to KSD288.

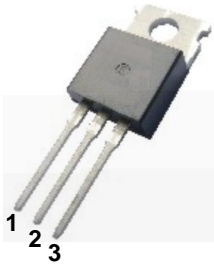
/ Applications

Low frequency power amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	O	Y
h_{FE} Range	40~80	70~140	120~240

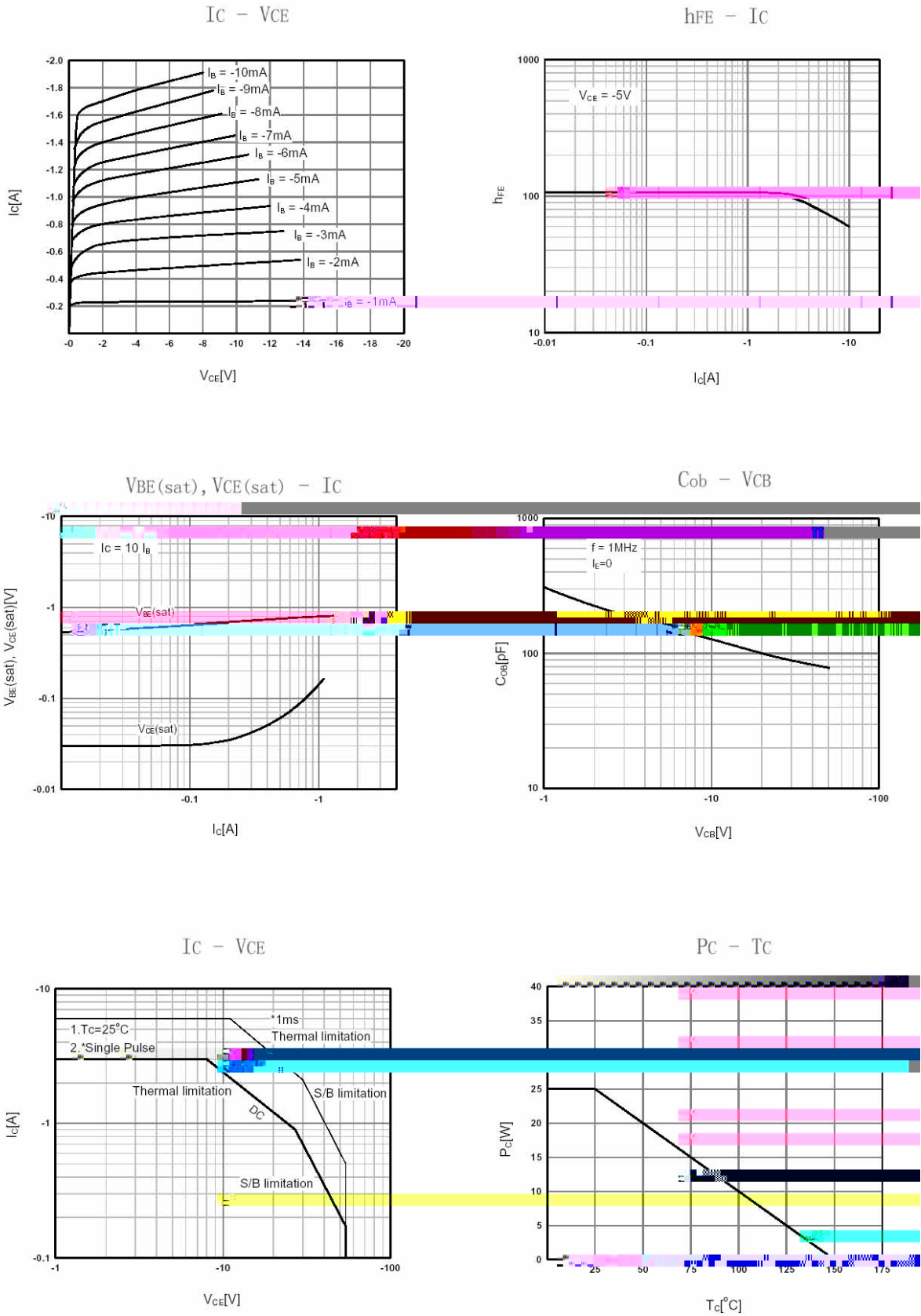
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-80	V
Collector to Emitter Voltage	V_{CEO}	-55	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-3.0	A
Collector Power Dissipation	P_C	2.0	W
	$P_C(T_c=25^{\circ}C)$	25	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

/ Electrical Characteristics(Ta=25)

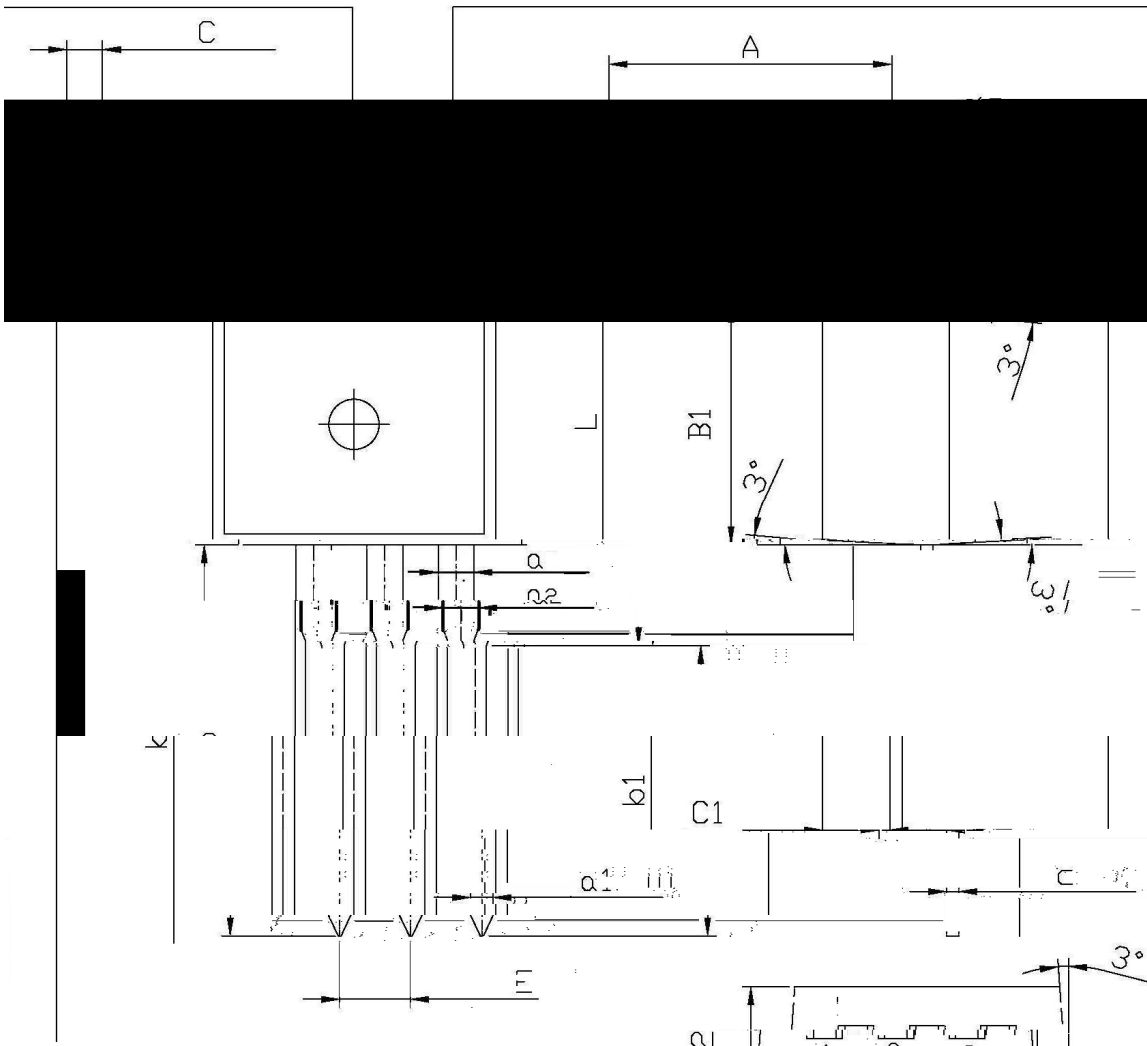
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-500 A \quad I_E=0$	-80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-10mA \quad I_B=0$	-55			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-500 A \quad I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-50V \quad I_E=0$			-50	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V \quad I_C=0$			-50	A
DC Current Gain	h_{FE}	$V_{CE}=-5.0V \quad I_C=-0.5A$	40		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-1.0A \quad I_B=-0.1A$		-0.15	-0.5	V

/ Electrical Characteristic Curve



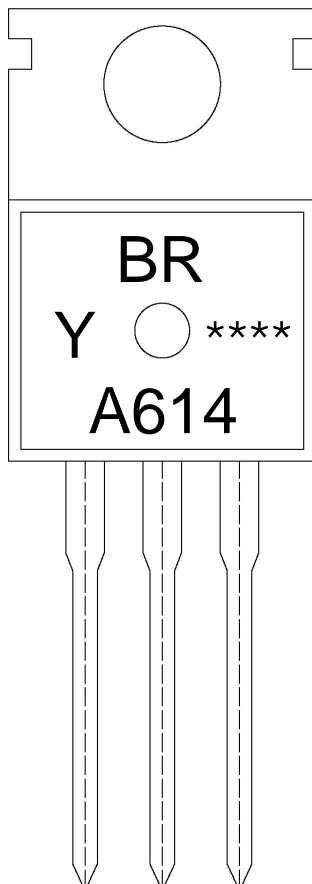
/ Package Dimensions

单位: mm TO-220 E



Symbol	Dimensions in milimeters		Symbol	Dimensions in millimeters	
	Min	Max		Min	Max
C	10.2	12.7	C1	1.2	1.4
B1	6.3	6.7	B	6.3	6.7
B1	15.7	16.1	B1	9.0	9.4
a	1.22	1.32	C	0.4	0.6
E	2.34	2.74	C2	4.3	4.7
Q2	1.25	1.45			

/ Marking Instructions



BR

A614

Y: h_{FE}

Note:

BR: Company Code

A614: Product Type.

Y: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

Reflow Soldering Profile for Dip Soldering(Pb-Free)



- 1
- 2
- 3

Note:

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

Heat Test Conditions

270±

Temp.:270±5

Time:10±1 sec

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Package Type	Units			Dimension (unit mm ³)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	
U2, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22, B23, B24, B25, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B42, B43, B44, B45, B46, B47, B48, B49, B50, B51, B52, B53, B54, B55, B56, B57, B58, B59, B60, B61, B62, B63, B64, B65, B66, B67, B68, B69, B70, B71, B72, B73, B74, B75, B76, B77, B78, B79, B80, B81, B82, B83, B84, B85, B86, B87, B88, B89, B90, B91, B92, B93, B94, B95, B96, B97, B98, B99, B100				