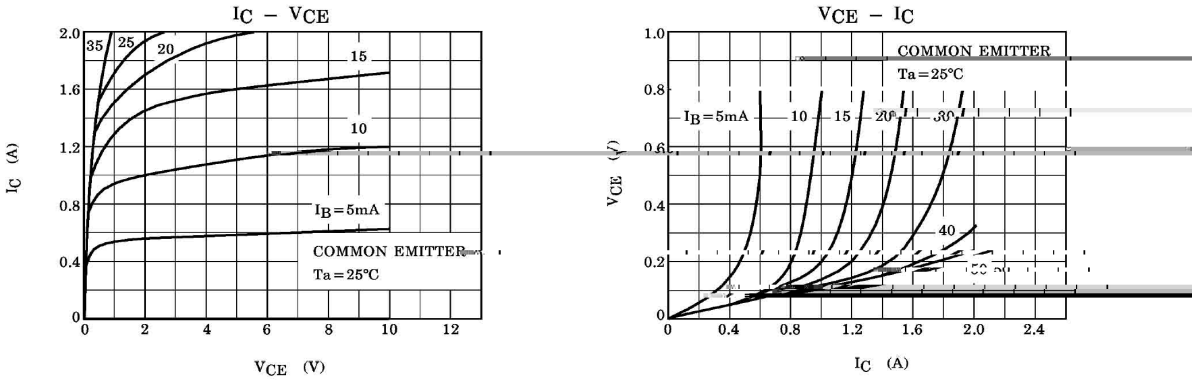
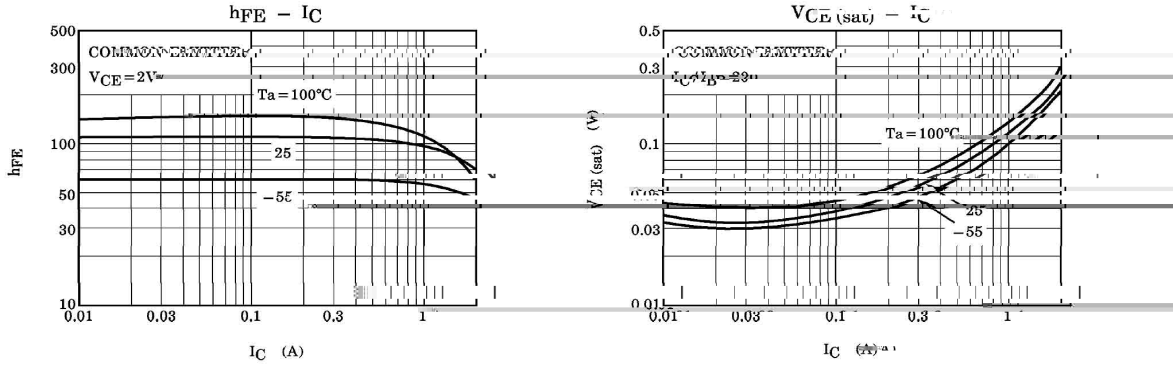
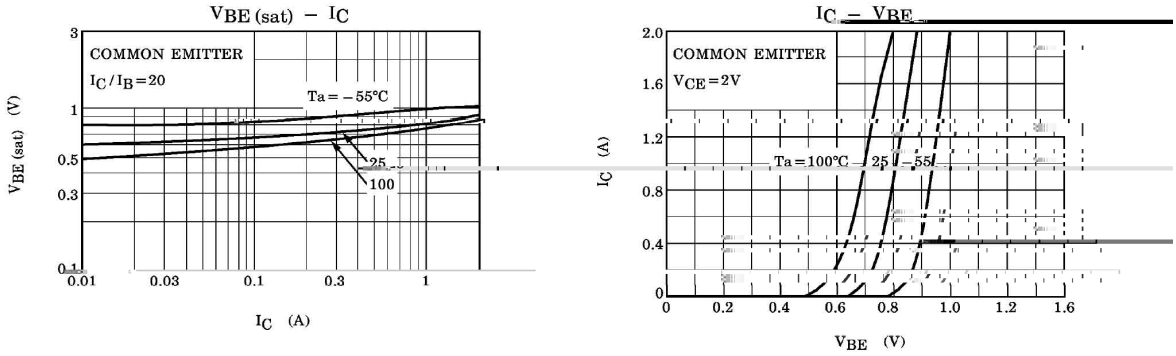
TO-92LM NPN

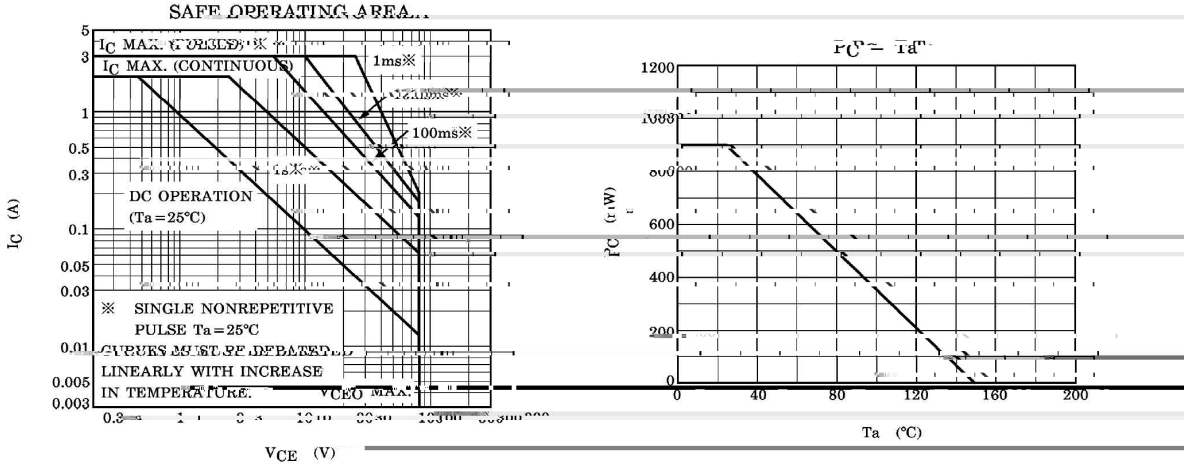
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 80 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 80 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 5.0 | V |
| Collector Current (DC) | $I_C$ | 2.0 | A |
| Base Current | $I_B$ | 1.0 | A |
| Collector Power Dissipation | $P_C$ | 900 | mW |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-Emitter Breakdown Voltage | $V_{BR(CEO)}$ | $I_C$=10mA $I_E$=0 | 80 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=80V $I_E$=0 | | | 1.0 | μA |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=5.0V $I_C$=0 | | | 1.0 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=2.0V $I_C$=0.5A | 70 | | 240 | |
| | $h_{FE(2)}$ | $V_{CE}$=2.0V $I_C$=1.5A | 40 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=1.0A $I_B$=0.05A | | 0.15 | 0.5 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=1.0A $I_B$=0.05A | | 0.9 | 1.2 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=2.0V $I_C$=0.5A | | 100 | | MHz |

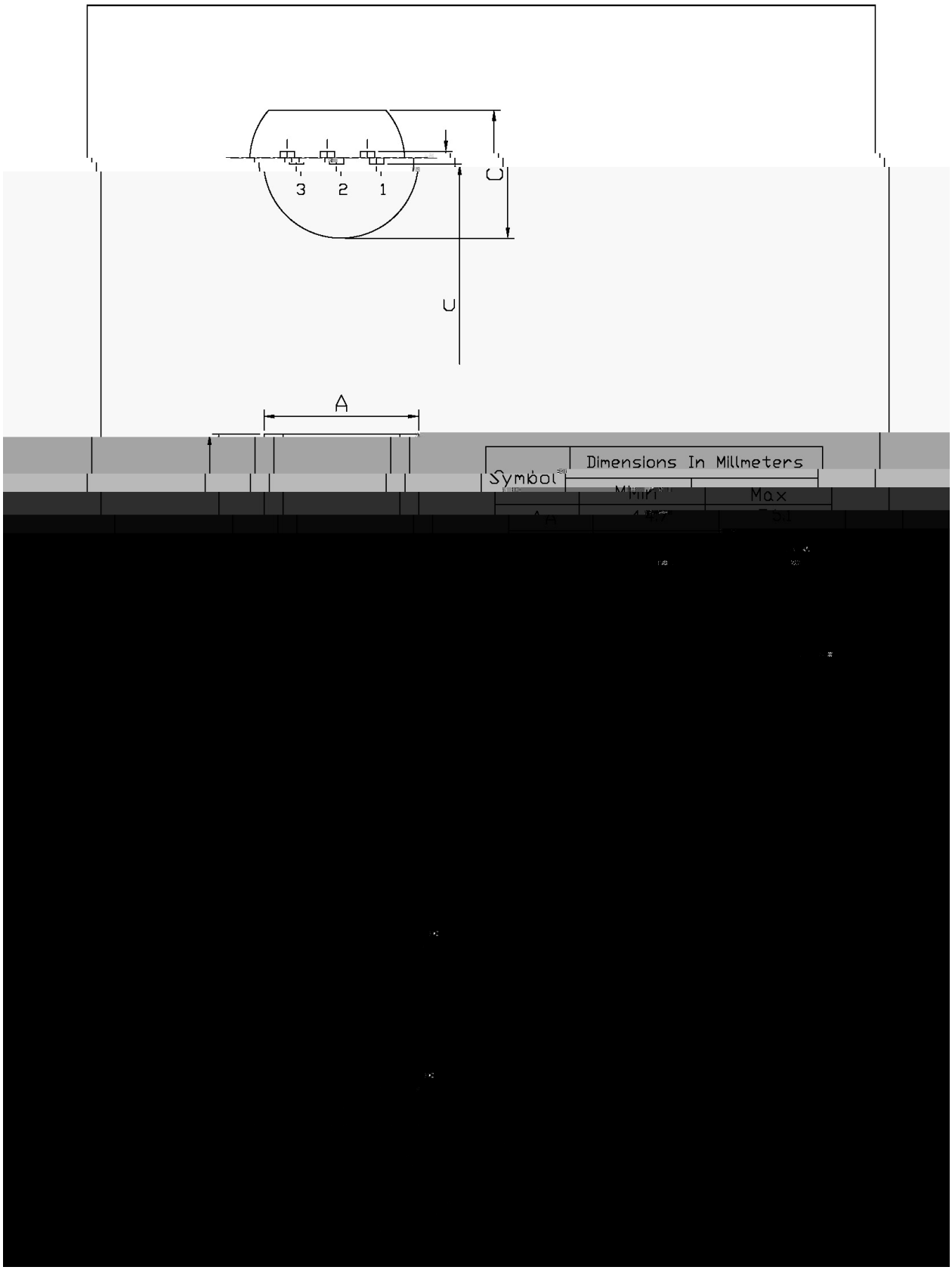

IC – VCE
35
25
20
15
10
IB=5mA
COMMON EMITTER
Ta=25°C
IC (A)
VCE (V)
VCE – IC
COMMON EMITTER
Ta=25°C
IB=5mA
10
15
20
30
40
VCE (V)
IC (A)

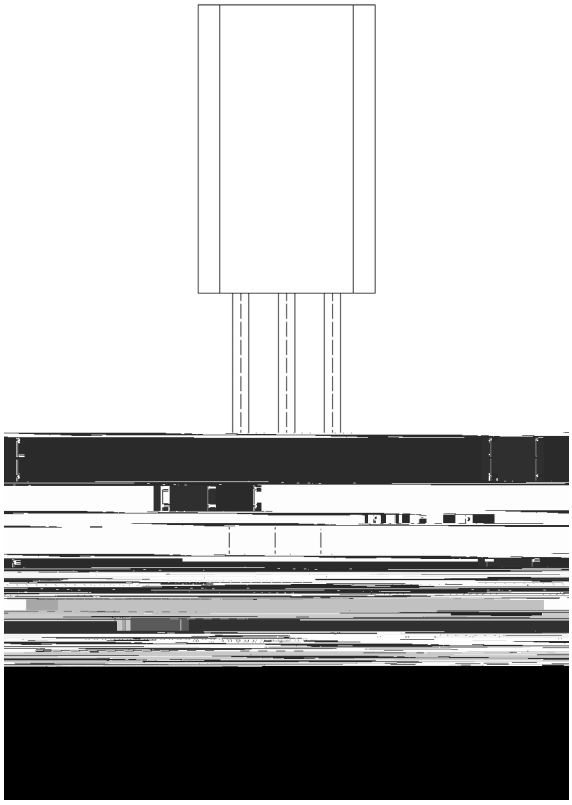

hFE – IC
COMMON EMITTER
VCE=2V
Ta=100°C
25
−55
hFE
IC (A)
VCE (sat) – IC
COMMON EMITTER
IC/IB=20
Ta=100°C
25
−55
VCE (sat) (V)
IC (A)


VBE (sat) – IC
COMMON EMITTER
IC/IB=20
Ta=−55°C
25
100
VBE (sat) (V)
IC (A)
IC – VBE
COMMON EMITTER
VCE=2V
Ta=100°C
25
−55
IC (A)
VBE (V)


SAFE OPERATING AREA
IC MAX. (CONTINUOUS)
1ms※
100ms※
DC OPERATION
(Ta=25°C)
※ SINGLE NONREPETITIVE
PULSE Ta=25°C
LINEARLY WITH INCREASE
IN TEMPERATURE.
VCEO MAX.
IC (A)
VCE (V)
PC – Ta
PC (W)
Ta (°C)

TO-92LM Unit: mm





BR:

C3328

O: $h_{FE}$

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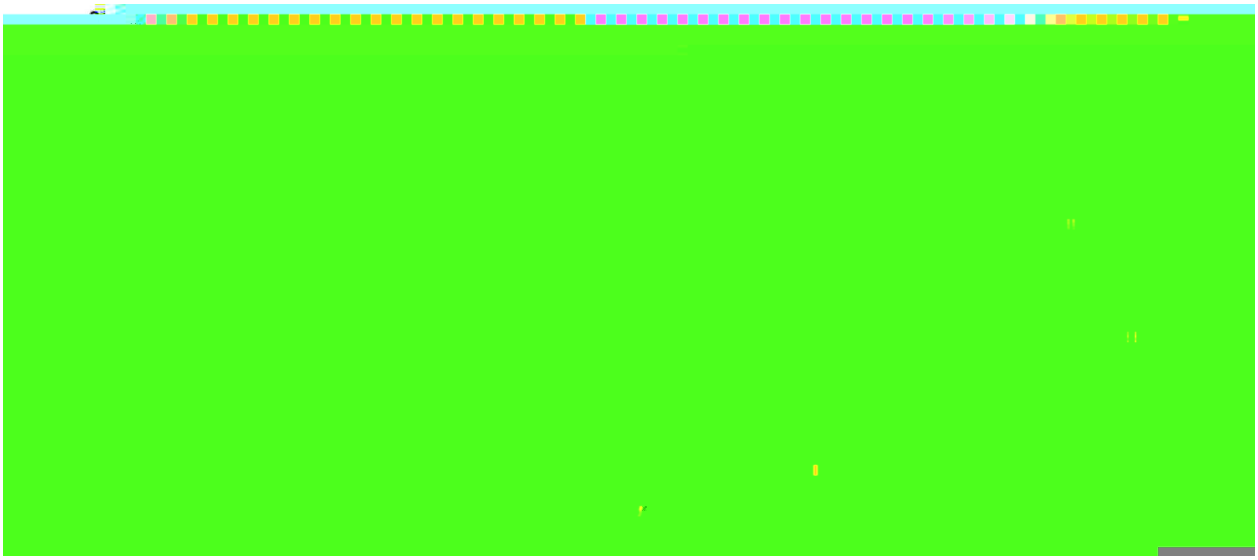
Note:

BR: Company Code.

C3328: Product Type.

O: $h_{FE}$ Classifications Symbol

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| | |
|---|---|
| | 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