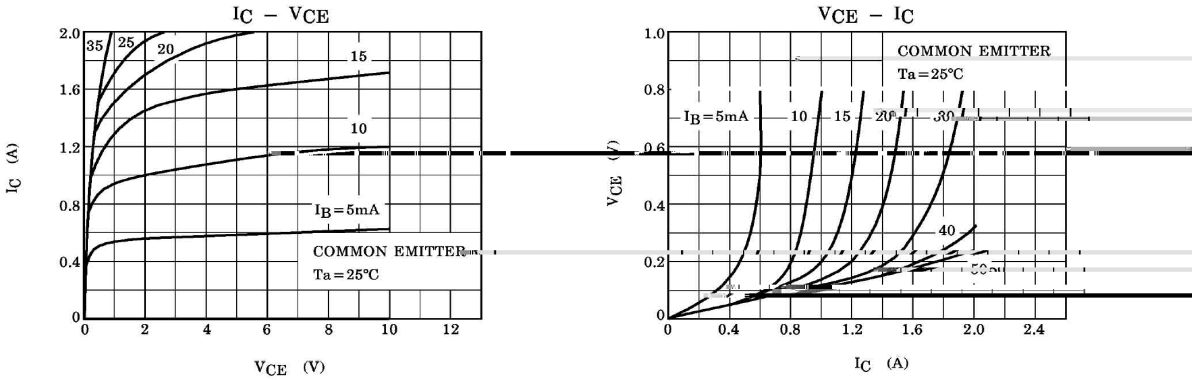
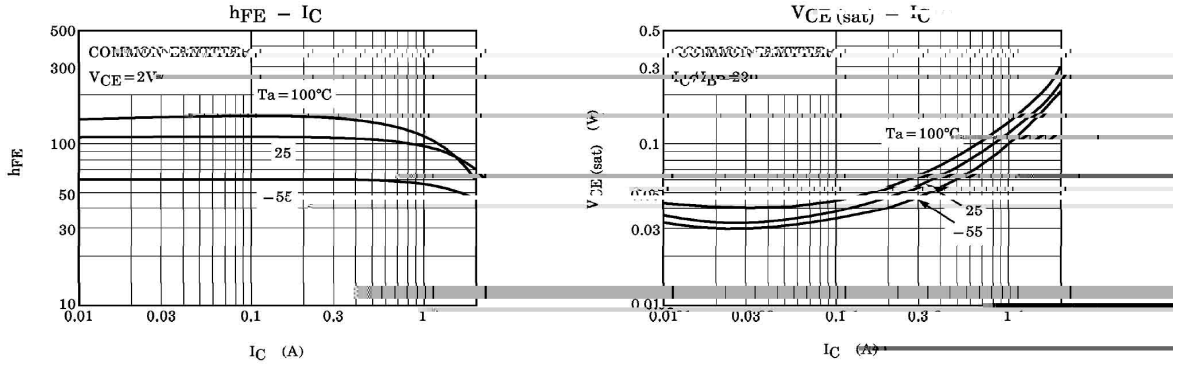
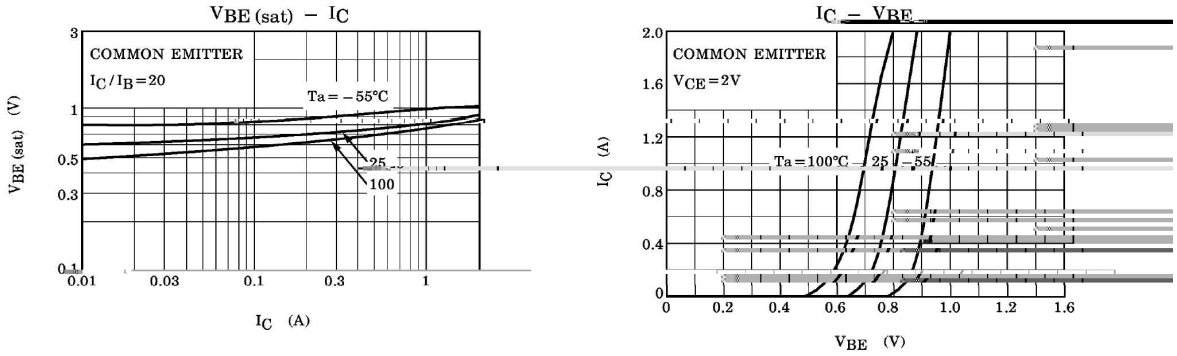
TO-92LM NPN

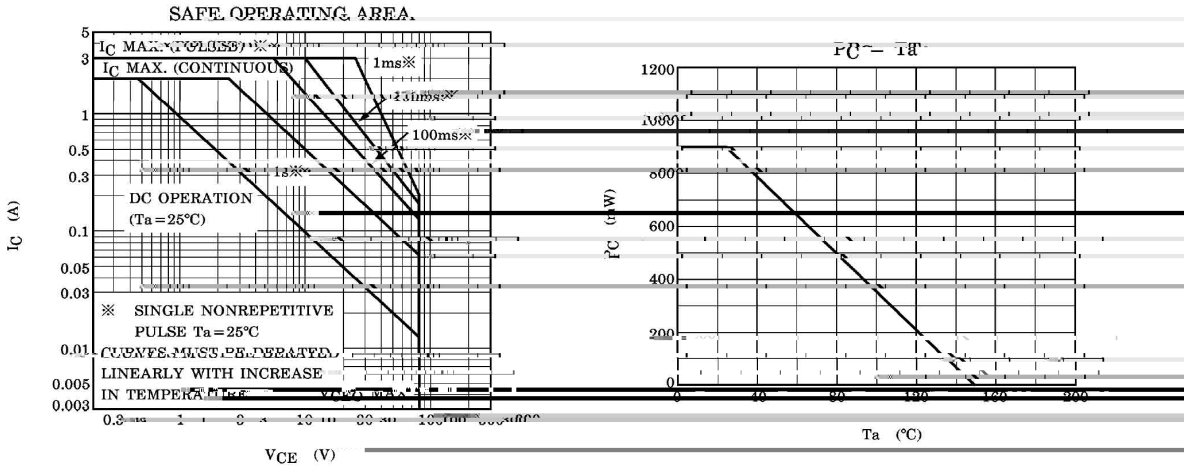
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current (DC)	I_C	2.0	A
Base Current	I_B	1.0	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}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

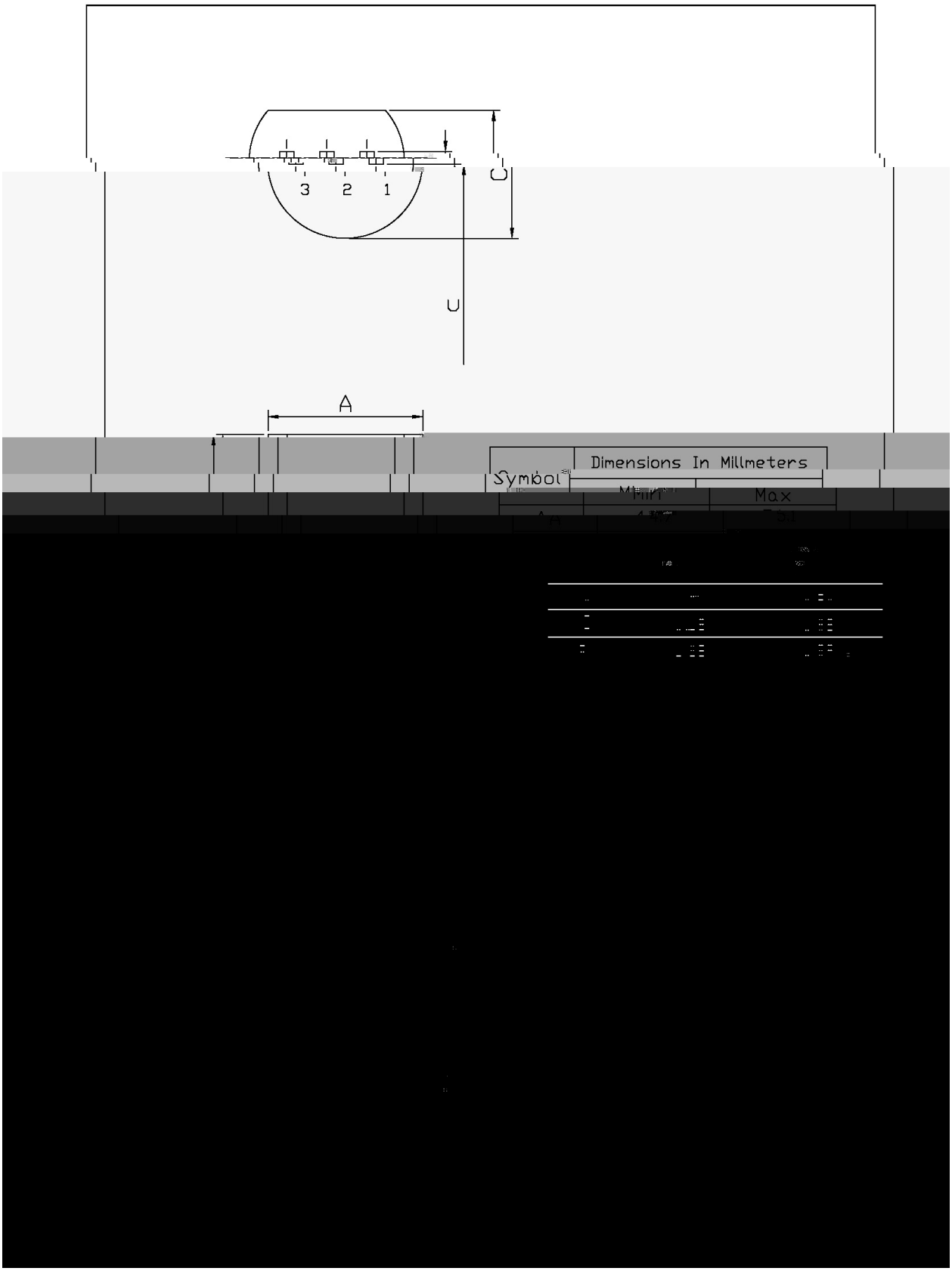

IC – VCE
35
25
20
15
10
IB=5mA
COMMON EMITTER
Ta=25°C
IC (A)
VCE (V)
VCE – IC
COMMON EMITTER
Ta=25°C
IB=5mA
10
15
20
30
40
VCE (V)
IC (A)

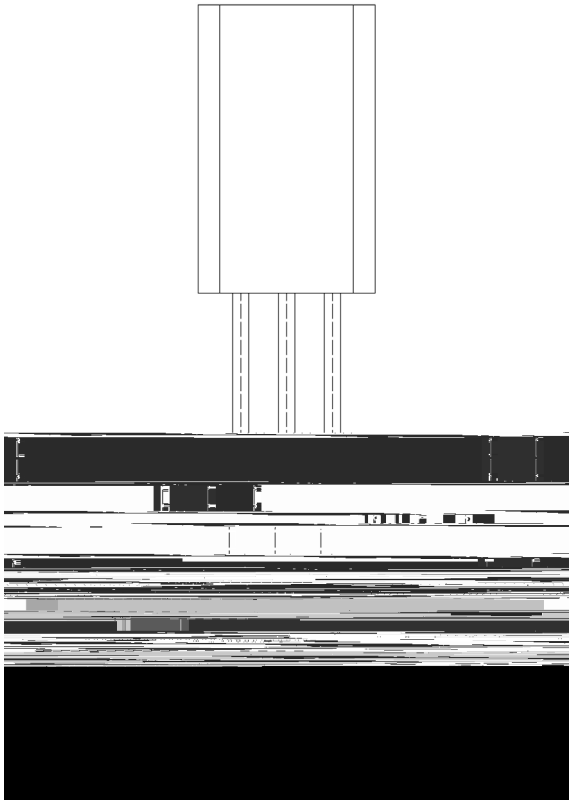

hFE – IC
COMMON EMITTER
VCE=2V
Ta=100°C
25
−55
hFE
IC (A)
VCE (sat) – IC
COMMON EMITTER
IC/IB=20
Ta=100°C
25
−55
VCE (sat) (V)
IC (A)


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. (PULSE)※
IC MAX. (CONTINUOUS)
1ms※
10ms※
100ms※
DC OPERATION
(Ta=25°C)
※ SINGLE NONREPETITIVE
PULSE Ta=25°C
CURVES MUST BE DERATED
LINEARLY WITH INCREASE
IN TEMPERATURE
IC (A)
VCE (V)
PC – Ta
PC (mW)
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

	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