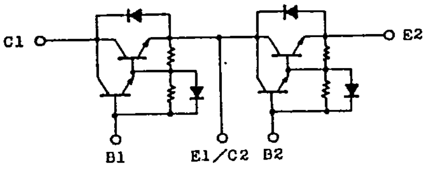
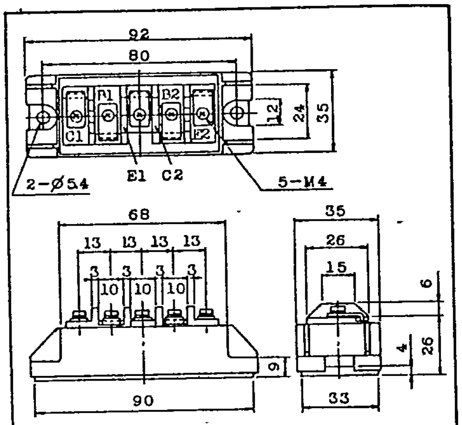
# SEMICONDUCTOR
TECHNICAL DATA

## MG75H2CL1
## MG75H2DL2



MG75H2CL1

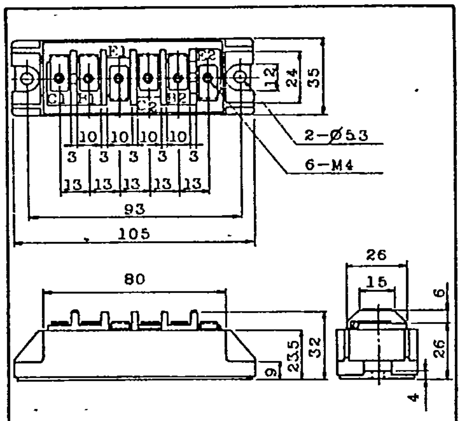
Unit in mm

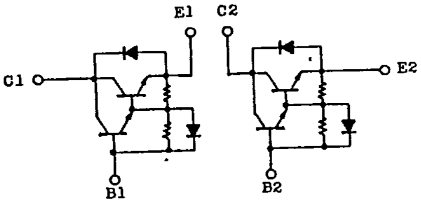


| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 2-68A1A |

Weight : 205g

Unit in mm





MG75H2DL2

| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 2-80A1A |

Weight : 245g

# SEMICONDUCTOR
## TECHNICAL DATA

MG75H2CL1
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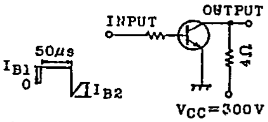
MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|---|---|---|---|---|
| Collector-Base Voltage | | $V_{CBO}$ | 600 | V |
| Collector-Emitter Sustaining Voltage | | $V_{CEX(SUS)}$ | 600 | V |
| Collector-Emitter Sustaining Voltage | | $V_{CEO(SUS)}$ | 500 | V |
| Emitter-Base Voltage | | $V_{EBO}$ | 6 | V |
| Collector Current | DC | $I_C$ | 75 | A |
| | 1ms | $I_{CP}$ | 150 | A |
| Forward Current | DC | $I_F$ | 75 | A |
| | 1ms | $I_{FM}$ | 150 | A |
| Base Current | | $I_B$ | 4 | A |
| Collector Power Dissipation (Tc=25°C) | | $P_C$ | 350 | W |
| Junction Temperature | | $T_j$ | 150 | °C |
| Storage Temperature Range | | $T_{stg}$ | -40～125 | °C |
| Isolation Voltage | | $V_{Isol}$ | 2500 (AC 1 Minute) | V |
| Screw Torque (Terminal/Mounting) | | - | 20/30 | kg·cm |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|---|
| Collector Cut-off Current | | $I_{CBO}$ | $V_{CB}$=600V, $I_E$=0 | - | - | 1.0 | mA |
| Emitter Cut-off Current | | $I_{EBO}$ | $V_{EB}$=6V, $I_C$=0 | - | - | 200 | mA |
| Collector-Emitter Sustaining Voltage | | $V_{CEO(SUS)}$ | $I_C$=0.5A, L=40mH | 500 | - | - | V |
| DC Current Gain | | $h_{FE}$ | $V_{CE}$=5V, $I_C$=75A | 80 | - | - | |
| Collector-Emitter Saturation Voltage | | $V_{CE(sat)}$ | $I_C$=75A, $I_B$=2A | - | - | 2.0 | V |
| Base-Emitter Saturation Voltage | | $V_{BE(sat)}$ | | - | - | 2.5 | V |
| Switching Time | Turn-on Time | $t_{on}$ | <br>$I_{B1}=-I_{B2}=2A$<br>DUTY CYCLE=0.5% | - | - | 2.0 | µs |
| | Storage Time | $t_{stg}$ | | - | - | 12 | |
| | Fall Time | $t_f$ | | - | - | 4.0 | |
| Forward Voltage | | $V_F$ | $I_F$=75A, $I_B$=0 | - | - | 1.5 | V |
| Reverse Recovery Time | | $t_{rr}$ | $I_F$=75A, $V_{BE}$=-3V<br>di/dt=100A/µs | - | - | 2.0 | µs |
| Thermal Resistance | | $R_{th(j-c)}$ | Transistor | - | - | 0.35 | °C/W |
| | | | Diode | - | - | 1.3 | |

**Toshiba 東芝 SEMICONDUCTOR**

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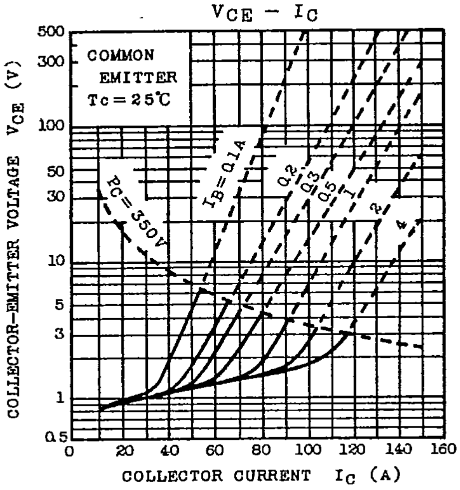
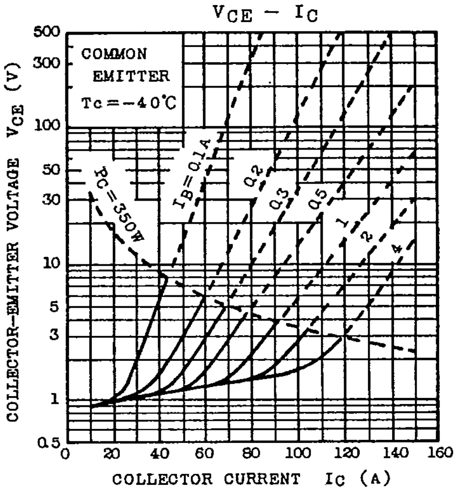
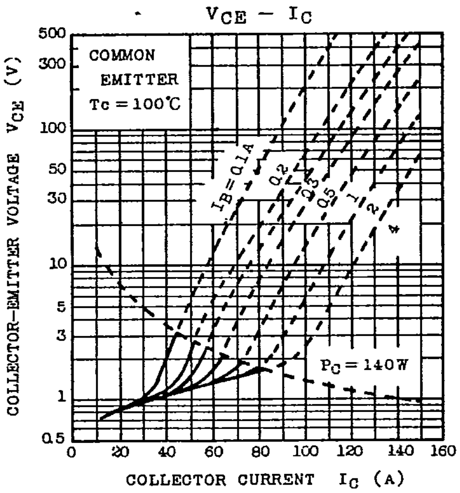
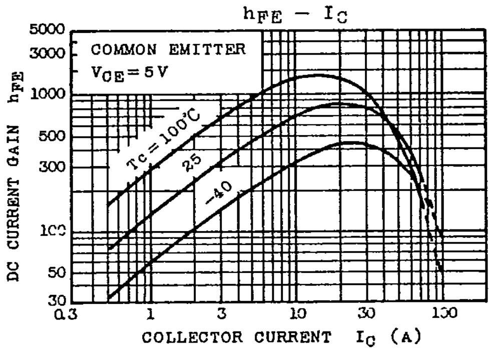
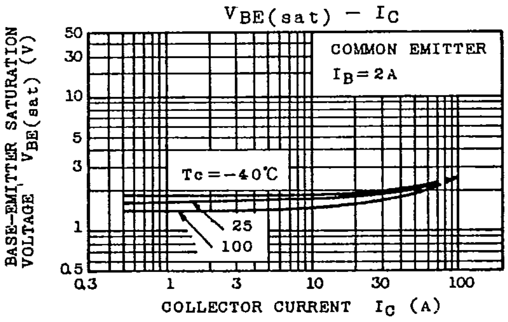

$V_{CE} - I_C$


$V_{CE} - I_C$


$V_{CE} - I_C$


$h_{FE} - I_C$


$V_{BE(sat)} - I_C$

9097250 TOSHIBA (DISCRETE/OPTO) 90D 16249 DT-33-35

**TOSHIBA** 東芝 **SEMICONDUCTOR**

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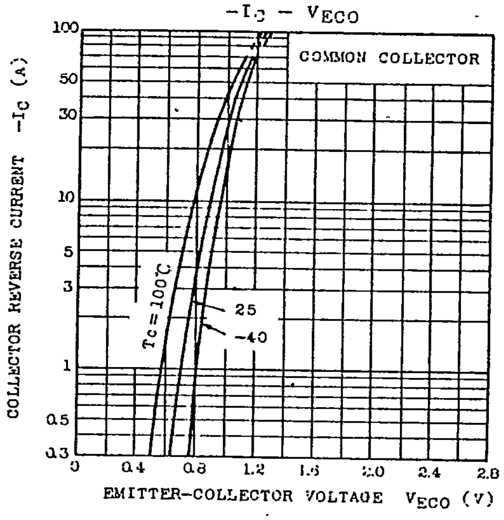
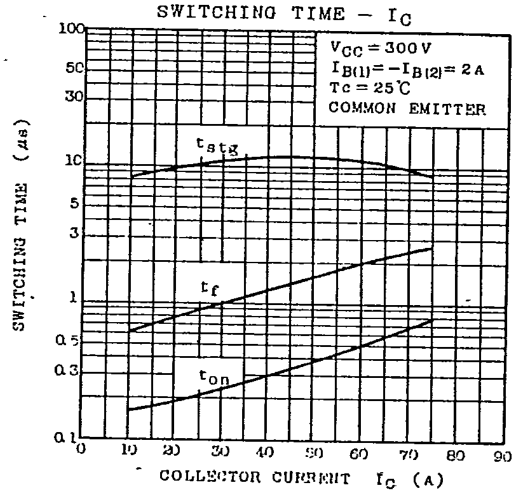
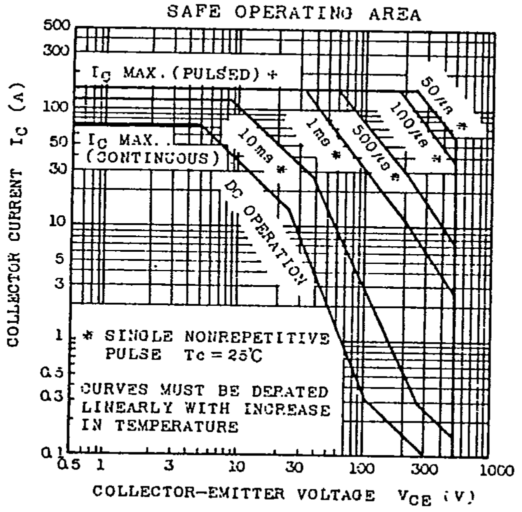
−IC − VECO



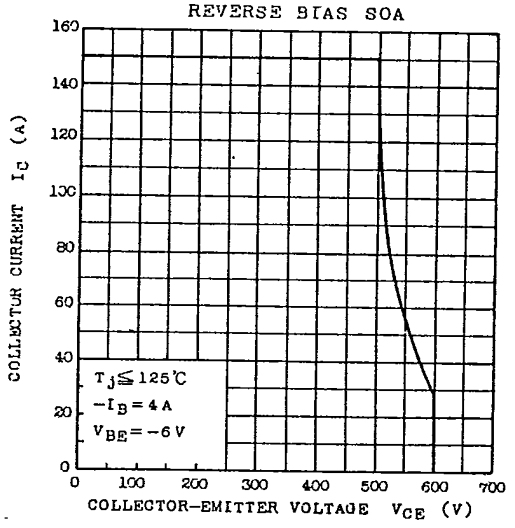
SWITCHING TIME − IC



SAFE OPERATING AREA



REVERSE BIAS SOA



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