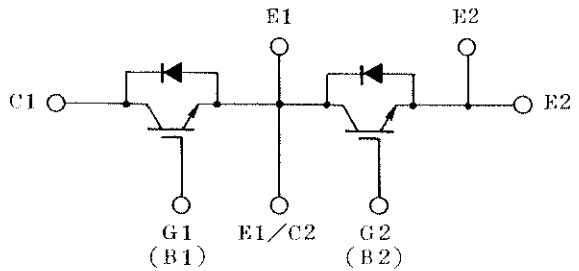


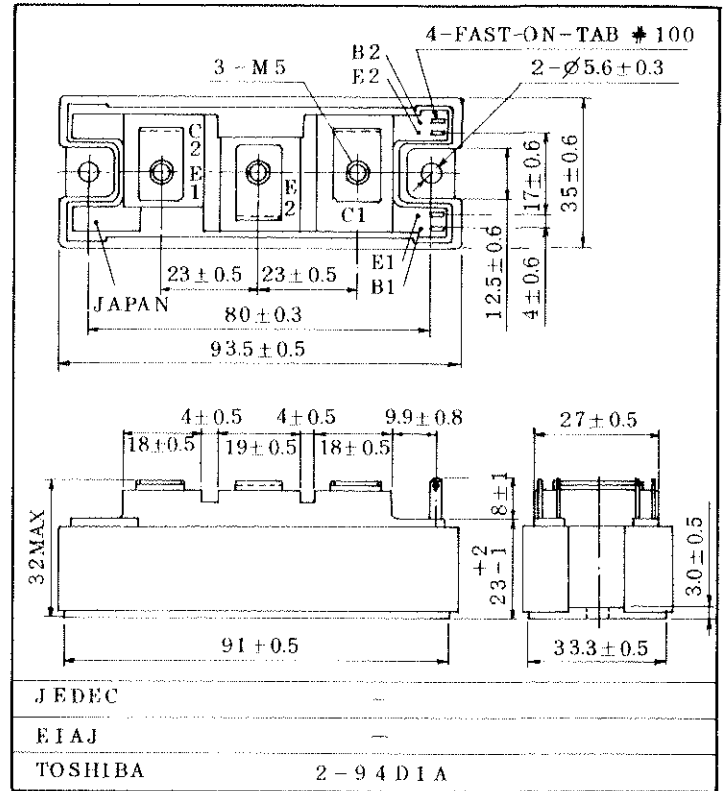
HIGH POWER SWITCHING APPLICATIONS.  
 MOTOR CONTROL APPLICATIONS.

- High Input Impedance
- High Speed :  $t_f=1.0\mu s$ (Max.)  
 $t_{rr}=0.25\mu s$ (Max.)
- Low Saturation Voltage  
 :  $V_{CE(sat)}=2.7V$ (Max.)
- Enhancement-Mode
- Includes a Complete Half Bridge in One Package.
- The Electrodes are Isolated from Case.

EQUIVALENT CIRCUIT



Unit in mm



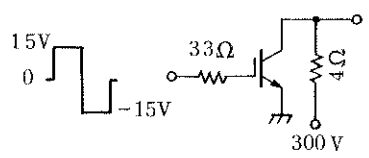
Weight : 202g

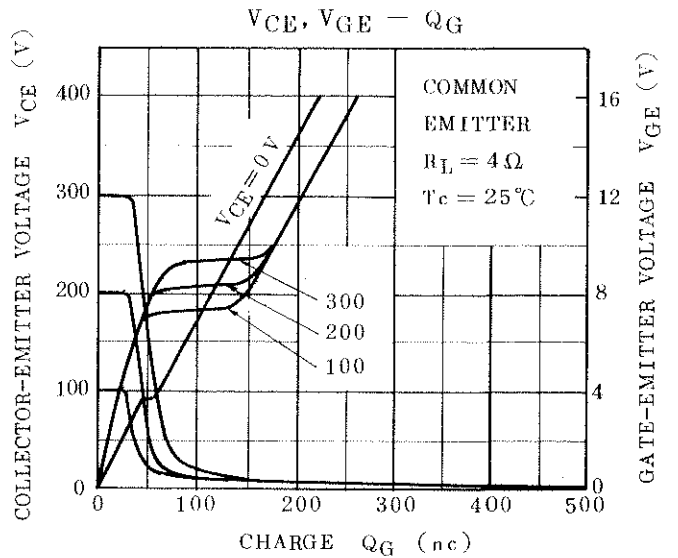
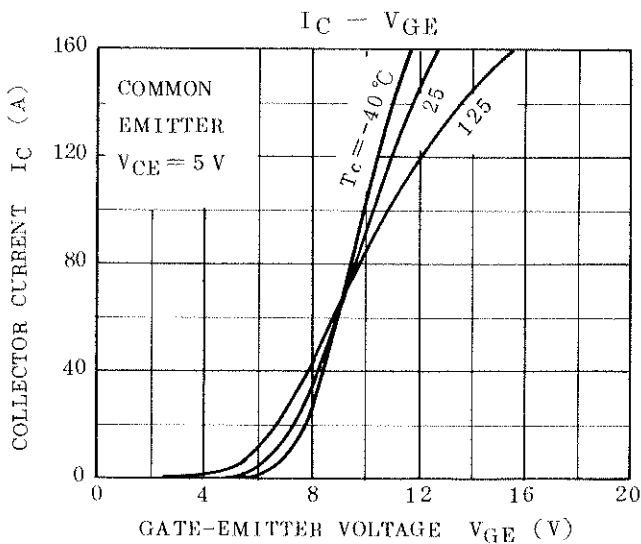
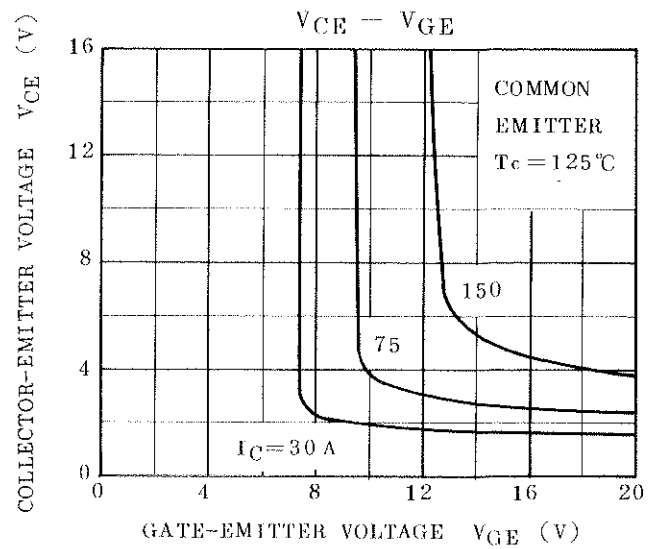
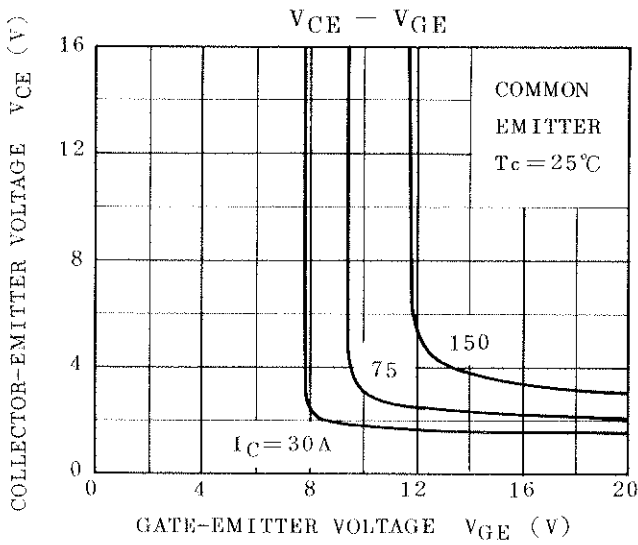
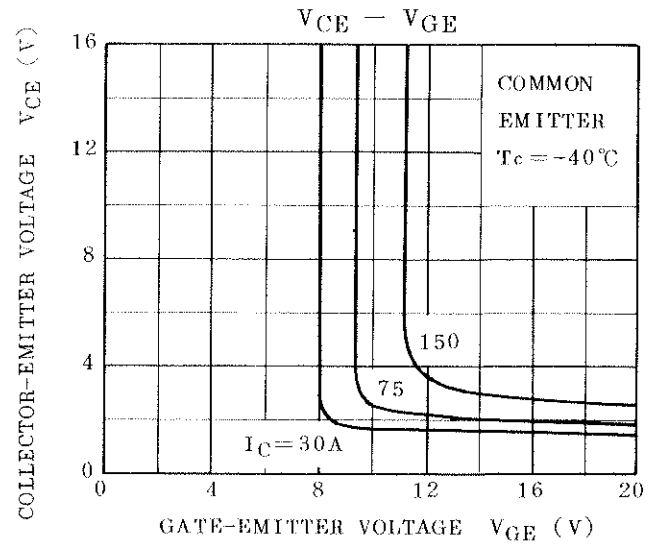
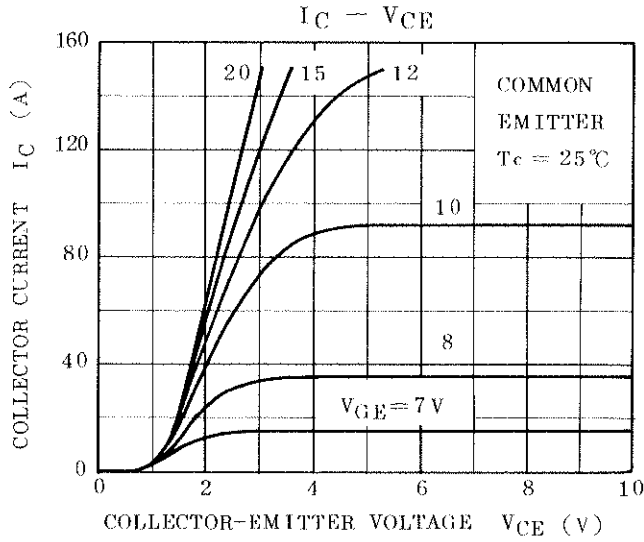
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	$V_{CES}$	600	V
Gate-Emitter Voltage	$V_{GES}$	±20	V
Collector Current	DC	$I_C$	75
	1ms	$I_{CP}$	150
Forward Current	DC	$I_F$	75
	1ms	$I_{FM}$	150
Collector Power Dissipation	$P_C$	350	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-40~125	°C
Isolation Voltage	$V_{Iso1}$	2500 (AC, 1 minute)	V
Screw Torque (Terminal/Mounting)	-	3/3	Nm

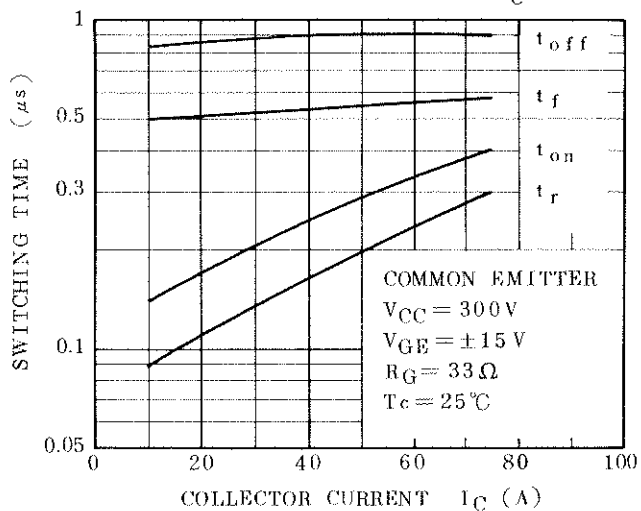
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ELECTRICAL CHARACTERISTICS (Ta=25°C)

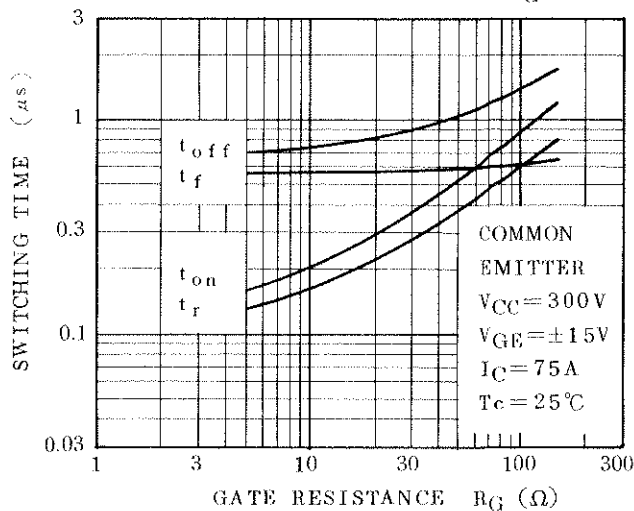
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		$I_{GES}$	$V_{CE}=\pm 20V, V_{GE}=0$	-	-	$\pm 500$	nA
Collector Cut-off Current		$I_{CES}$	$V_{CE}=600V, V_{GE}=0$	-	-	1.0	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CES}$	$I_C=10mA, V_{GE}=0$	600	-	-	V
Gate-Emitter Cut-off Voltage		$V_{GE(OFF)}$	$I_C=75mA, V_{CE}=5V$	3.0	-	6.0	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=75A, V_{GE}=15V$	-	2.3	2.7	V
Input Capacitance		$C_{ies}$	$V_{CE}=10V, V_{GE}=0, f=1MHz$	-	6000	-	pF
Switching Time	Rise Time	$t_r$		-	0.3	0.6	$\mu s$
	Turn-on Time	$t_{on}$		-	0.4	0.8	
	Fall Time	$t_f$		-	0.6	1.0	
	Turn-off Time	$t_{off}$		-	1.0	1.6	
Forward Voltage		$V_F$	$I_F=75A, V_{GE}=0$	-	1.5	2.5	V
Reverse Recovery Time		$t_{rr}$	$I_F=75A, V_{GE}=-10V$ $di/dt=100A/\mu s$	-	0.15	0.25	$\mu s$
Thermal Resistance		$R_{th(j-c)}$	Transistor	-	-	0.35	$^{\circ}C/W$
			Diode	-	-	0.83	



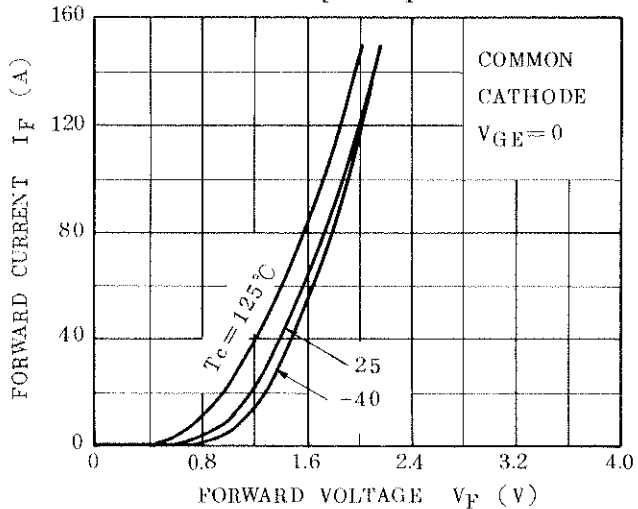
SWITCHING TIME -  $I_C$



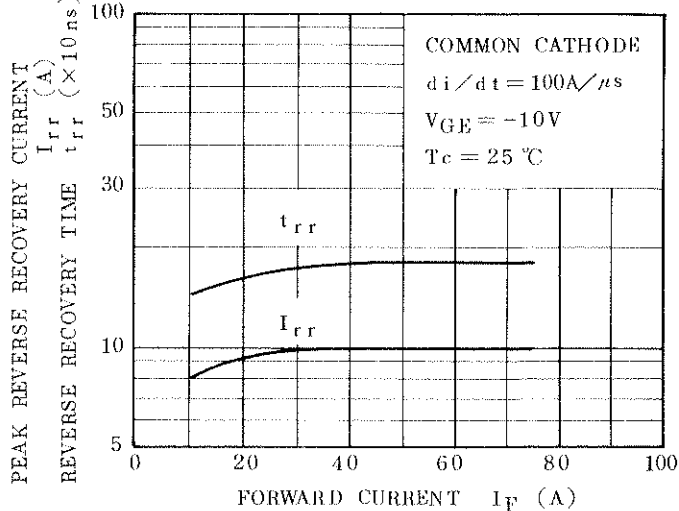
SWITCHING TIME -  $R_G$



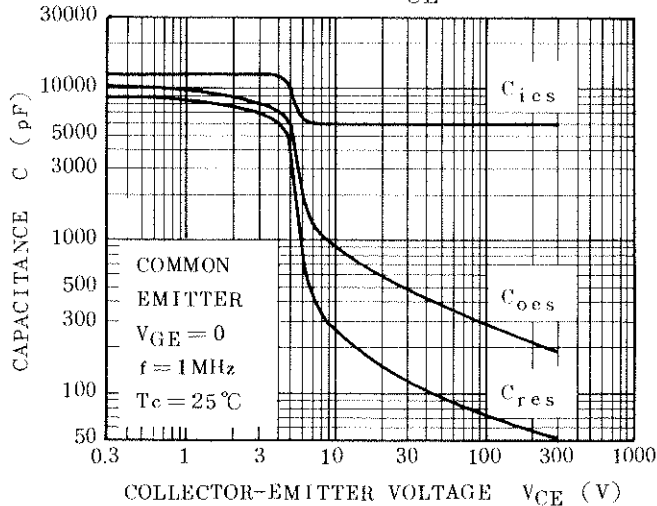
$I_F - V_F$



$t_{rr}, I_{rr} - I_F$



$C - V_{CE}$



REVERSE BIAS SOA

