



SEMICONDUCTOR TECHNICAL DATA

2SK578

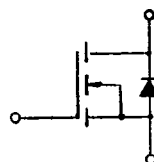
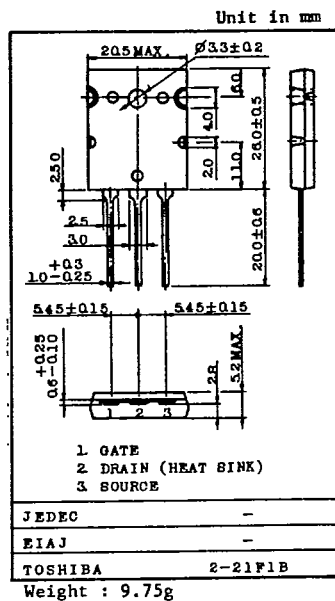
T.39.27

MG15C4HMI (150V/15A)

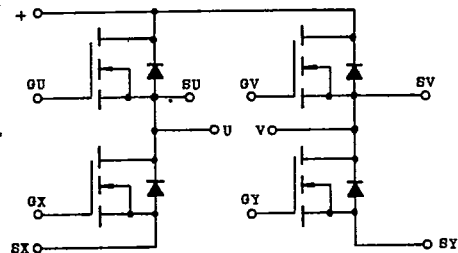
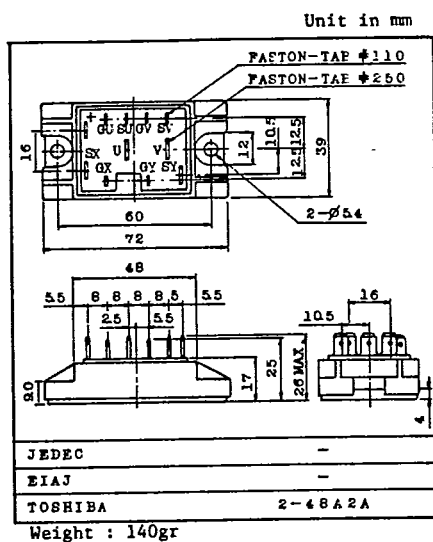
OUT LINE

EQUIVALEN CIRCUIT

2SK578



MG15C4HMI



TOSHIBA CORPORATION

GT1A2A



SEMICONDUCTOR
TECHNICAL DATA

2SK578

MG15C4HM1

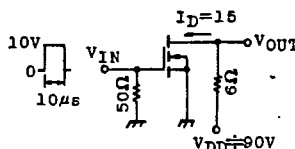
T.39.27

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	2SK578	MG15C4HM1	UNIT
Drain-Source Voltage	V _{DSS}	150	150	V
Gate-Source Voltage	V _{GSS}	±20	±20	V
Drain Current	DC	±15	±15	A
	Peak	±30	±30	A
Drain Power Dissipation (Tc=25°C)	P _D	120	65	W
Channel Temperature	T _{ch}	150	150	°C
Storage Temperature Range	T _{stg}	-55~150	-40~125	°C
Isolation Voltage	V _{isol}	—	2500 (AC.1 Min.)	V
Screw Torque	—	—	30	Kg.cm

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0	—	—	±100	nA
Drain Cut-off Current	I _{DSS}	V _{DS} =150V, V _{GS} =0	—	—	1.0	mA
Drain-Source Breakdown Voltage	V(BR) _{DSS}	I _D =10mA, V _{GS} =0	150	—	—	V
Gate Threshold Voltage	V _{th}	V _{DS} =10V, I _D =1mA	1.5	—	3.5	V
Forward Transfer Admittance	Y _{fs}	V _{DS} =10V, I _D =15A	4.0	7.0	—	S
Drain-Source ON Resistance	R _{DS(ON)}	I _D =15A, V _{GS} =10V	—	0.15	0.22	Ω
Source Drain Forward Voltage	V _{SDF}	I _S =15A, V _{GS} =0	—	1.3	1.8	V
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHz	—	1300	—	pF
Switching Time	Rise Time	t _r	—	400	800	ns
	Turn-on Time	t _{on}	—	500	1000	ns
	Fall Time	t _f	—	100	200	ns
	Turn-off Time	t _{off}	—	300	600	ns
Reverse Recovery Time	t _{rr}	I _D =-15A, R _G =220Ω V _{GS} =-15V, di/dt=60A/μs	—	200	400	ns



TOSHIBA CORPORATION

GT1A2A

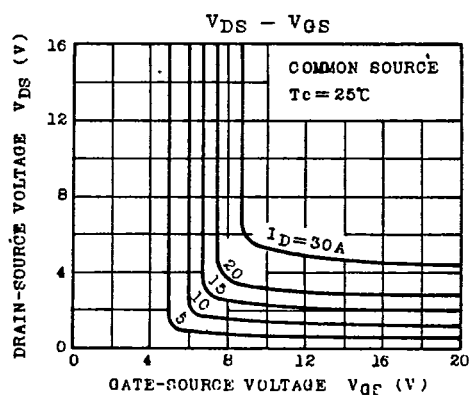
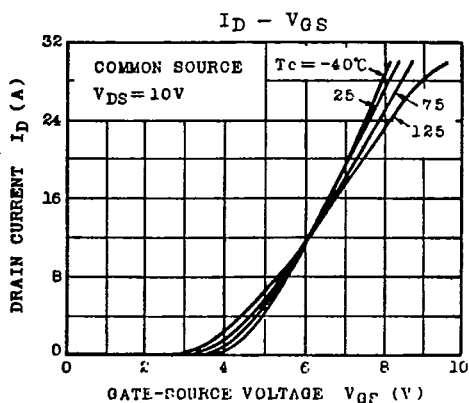
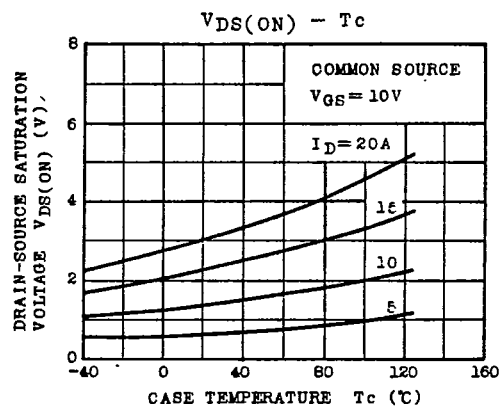
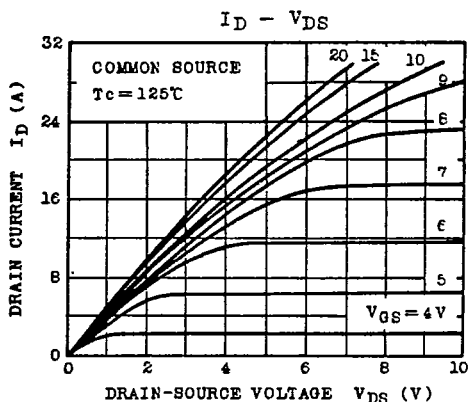
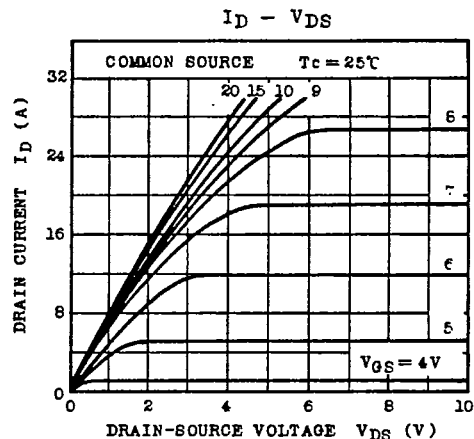
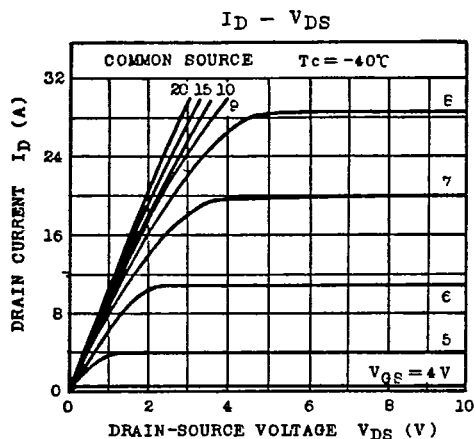


SEMICONDUCTOR
TECHNICAL DATA

2SK578

MG15C4HM1

T. 39.27



TOSHIBA CORPORATION

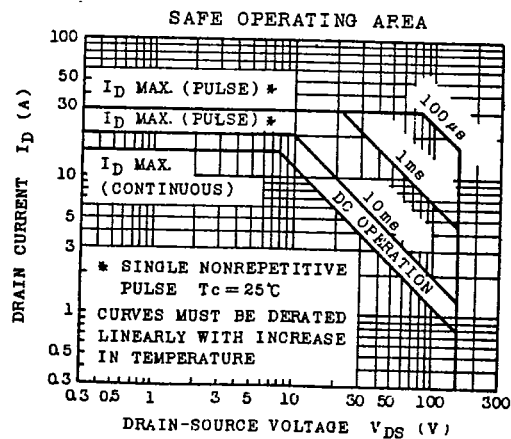
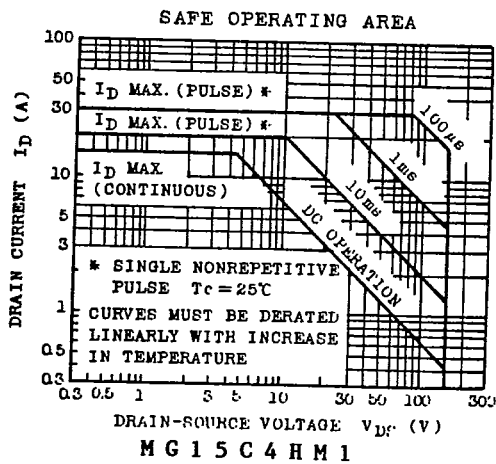
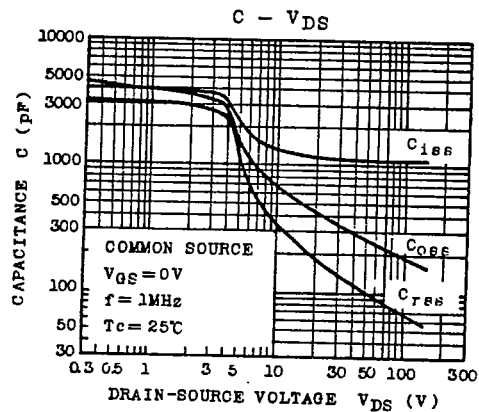
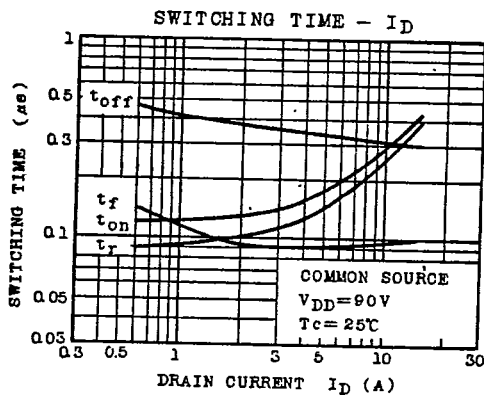
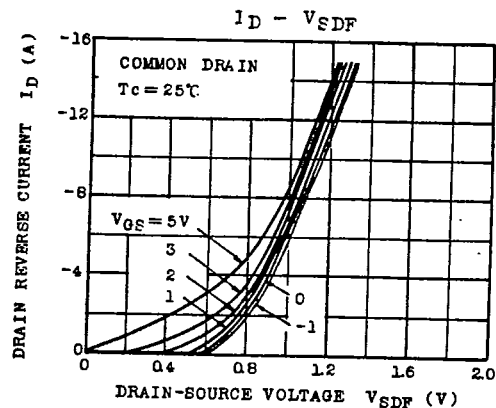
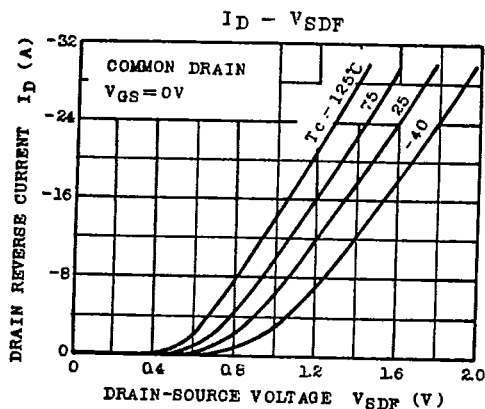
GT1A2A



SEMICONDUCTOR
TECHNICAL DATA

2SK578
MG15C4HM1

T.39.27



TOSHIBA CORPORATION

2SK578

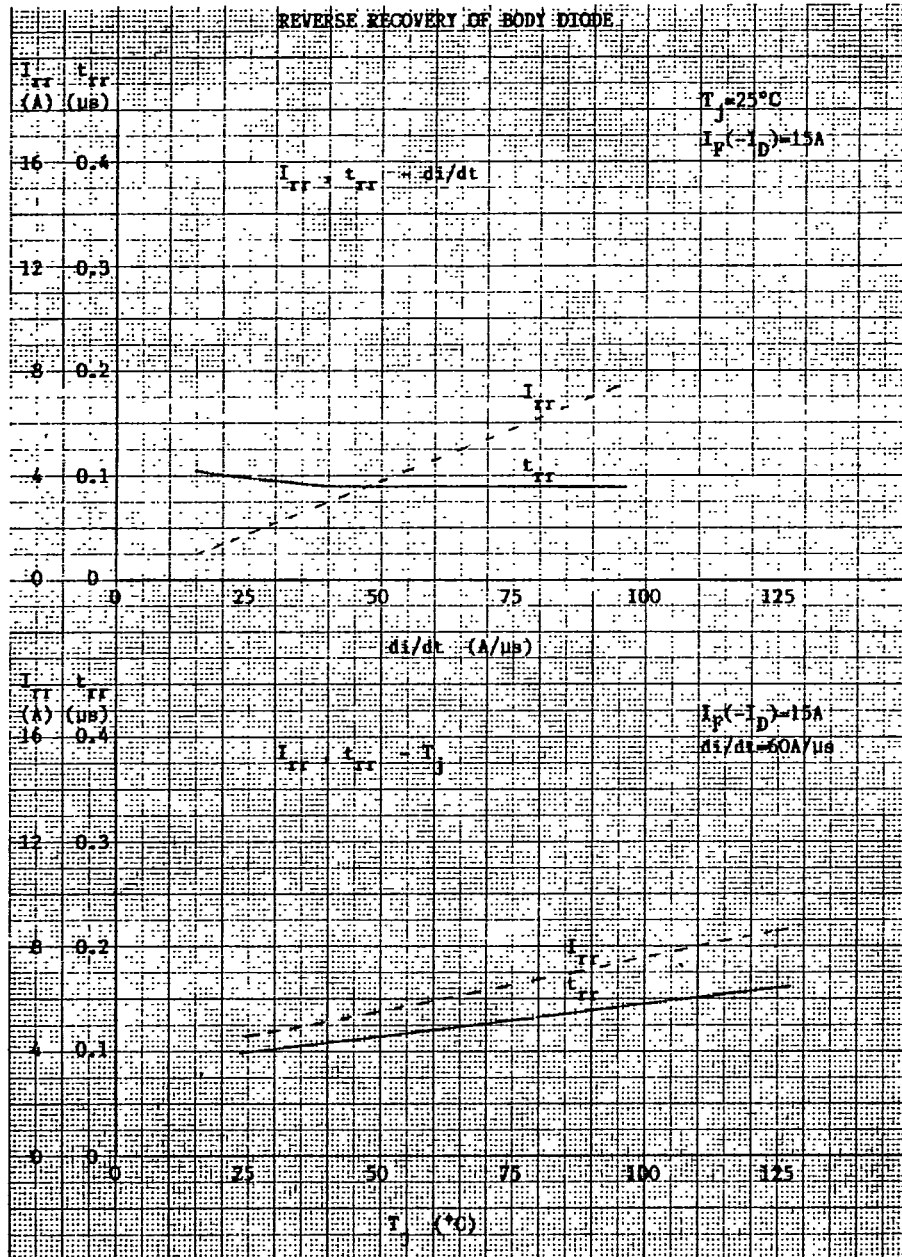
GT1A2A



SEMICONDUCTOR
TECHNICAL DATA

2SK578
MG15C4HMI

T.39-27



TOSHIBA CORPORATION

GT1A2A

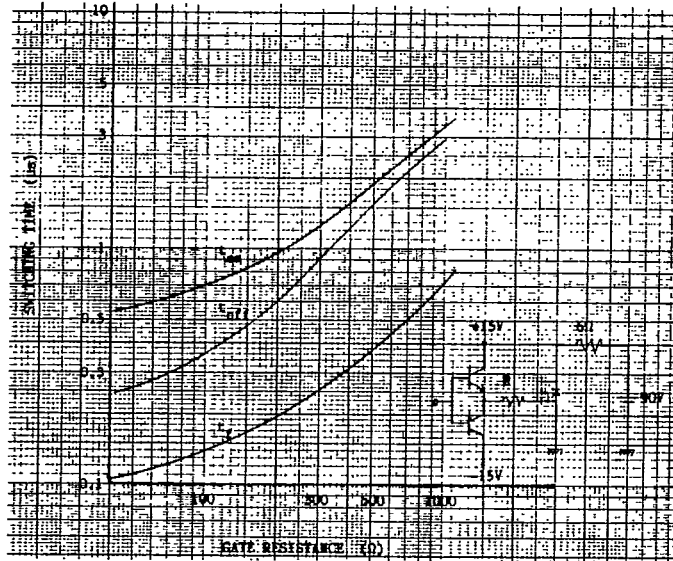


SEMICONDUCTOR
TECHNICAL DATA

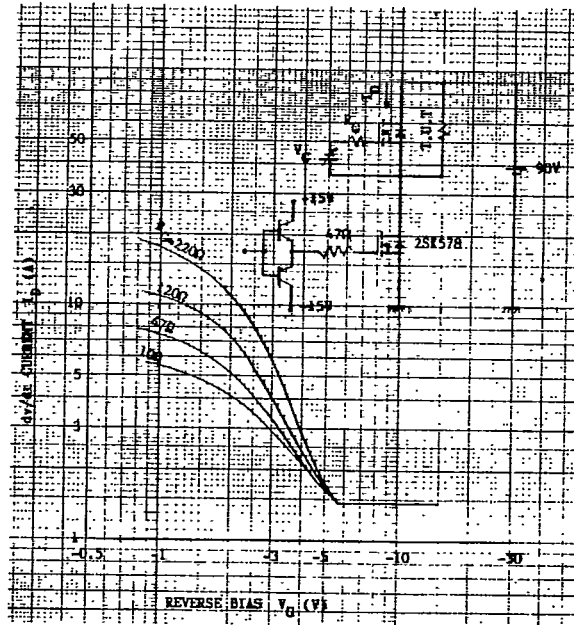
2SK578
MG15C4HM1

T-39-27

GATE RESISTANCE DEPENDENCE OF SWITCHING TIME



REVERSE BIAS DEPENDENCE OF dy/dt CURRENT



TOSHIBA CORPORATION

GT1A2A