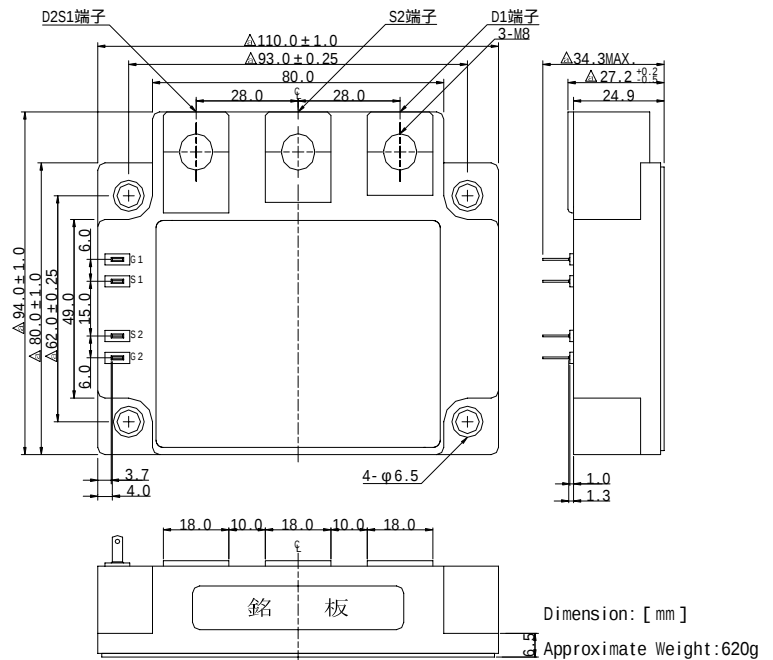
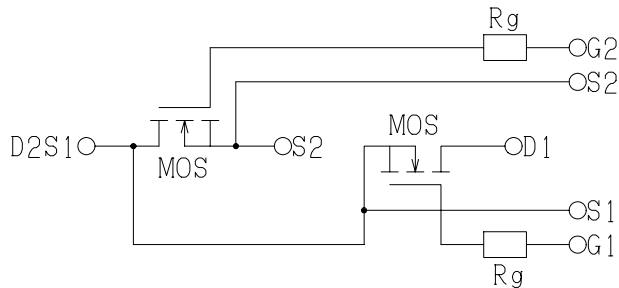


□ 外形寸法圖 : *OUTLINE DRAWING*



□ 最大定格 : *MAXIMUM RATINGS* ($T_c = 25$)

Item		Symbol	Test Condition	Rated Value	Unit
ドレイン・ソース間電圧 Drain-Source Voltage		V_{DS}	$V_{GS} = 0V$	100	V
ゲート・ソース間電圧 Gate-Source Voltage		V_{GS}		± 20	V
ドレイン電流 Drain Current		I_D	Duty=50%	500	A
			DC 端子温度=80	390	
パルスドレイン電流 Pulsed Drain Current		I_{DM}		1,000	A
全損失 Total Power Dissipation		P_D		1,250	W
動作接合温度 Junction Temperature Range		T_j		-40 ~ +150	
保存温度 Storage Temperature Range		T_{stg}		-40 ~ +125	
絶縁耐圧 Isolation Voltage		V_{ISO}	Terminal to Base AC,1minute	2,000	$V_{(RMS)}$
締め付けトルク Mounting Torque	Module Base to Heatsink	F_{tor}		3	N・m
	Busbar to Main Terminal			3	

□ MOS-FET電氣的特性 : *MOS-FET ELECTRICAL CHARACTERISTICS* ($T_c = 25$)

Characteristic		Symbol	Test Condition	Min.	Typ.	Max.	Unit
ドレイン遮断電流 Zero Gate Voltage Drain Current		I_{DSS}	$V_{DS}=100V, V_{GS}=0V$	-	-	1.0	mA
ゲート漏れ電流 Gate-Source Leakage Current		I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$	-	-	0.5	mA
ゲートしきい値電圧 Gate-Source Threshold Voltage		$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=16mA$	1.0	-	2.5	V
ドレイン・ソース間わ抵抗(MOSFET部) Drain-Source On-Resistance		$R_{DS(on)}$	$V_{GS}=10V, I_D=500A$	-	0.5	0.56	mΩ
ドレイン・ソース間わ電圧 Drain-Source On-Voltage		$V_{DS(on)}$	$V_{GS}=10V, I_D=500A$ (端子間)	-	0.25 (0.55)	0.30 (0.62)	V
順伝達コンダクタンス Forward Transconductance		G_{fs}	$V_{DS}=15V, I_D=500A$		135		S
入力容量	Input Capacitance	C_{iss}	$V_{GS}=0V \quad V_{DS}=10V \quad f=1MHz$	-	155	-	nF
出力容量	Output Capacitance	C_{oss}		-	12	-	nF
帰還容量	Reverse Transfer Capacitance	C_{rss}		-	5.3	-	nF
スイッチング時間 Switching Time	上昇時間 Rise Time	t_r	$V_{DD}=50V$ $I_D=250A$ $R_G=1.0\Omega$ $V_{GS}=-5V, +10V$	-	350	-	ns
	ターンオン遅延時間 Turn-on Delay Time	$t_{d(on)}$		-	150	-	
	下降時間 Fall Time	t_f		-	60	-	
	ターンオフ遅延時間 Turn-off Delay Time	$t_{d(off)}$		-	450	-	

□内蔵逆方向ダイオードの定格と特性: *Source-Drain DIODE RATINGS & CHARACTERISTICS* ($T_c = 25$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
ソース電流 Continuous Source Current	I_S	Dutv=50%	-	-	500	A
		DC 端子温度=80	-	-	390	A
パルスソース電流 Pulsed Source Current	I_{SM}		-	-	1,000	A
ダイオード順電圧 Diode Forward Voltage	V_{SD}	$I_S=500A$	-	0.85	-	V
逆回復時間 Reverse Recovery Time	t_{rr}	$I_S=500A$, -dis/ dt=1000A/ μs	-	70	-	ns

□ 熱 的 特 性 : *THERMAL CHARACTERISTICS*

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
接合・ケ - ス間熱抵抗 Thermal Impedance, Junction to Case	R _{th(j-c)}	MOS-FET	-	-	0.10	/W

Fig.1- Output Characteristics (Typical)

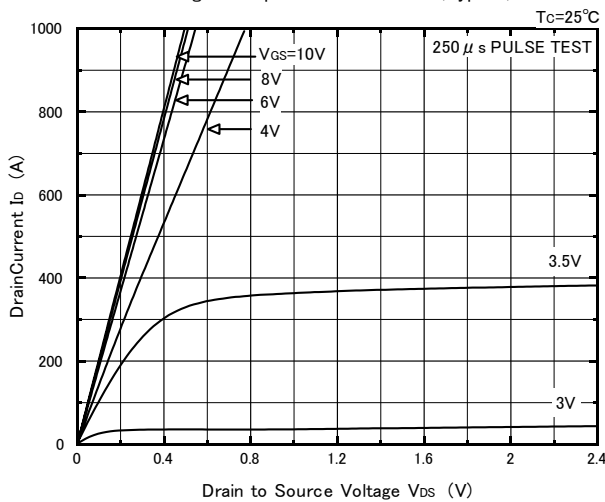


Fig.2- Drain to Source On Voltage vs. Gate to Source Voltage (Typical)

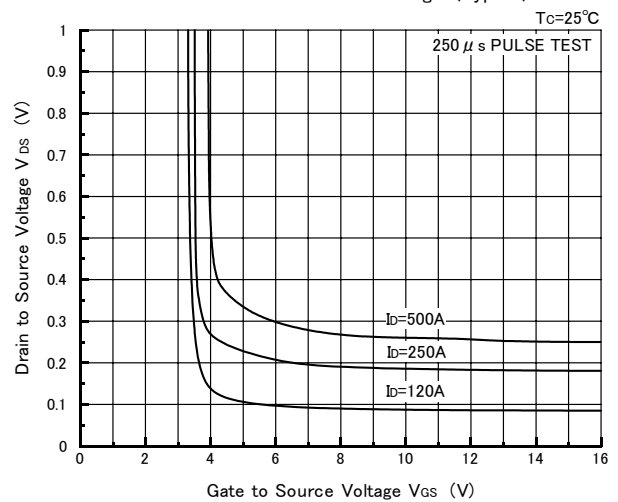


Fig.3- Drain to Source On Voltage vs. Junction Temperature (Typical)

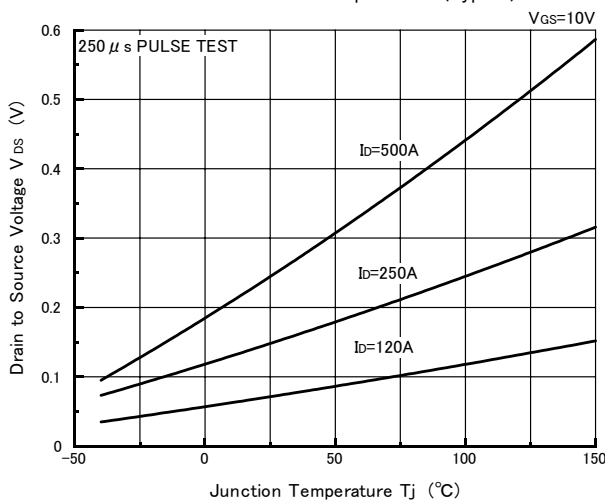


Fig.4- Capacitance vs. Drain to Source Voltage (Typical)

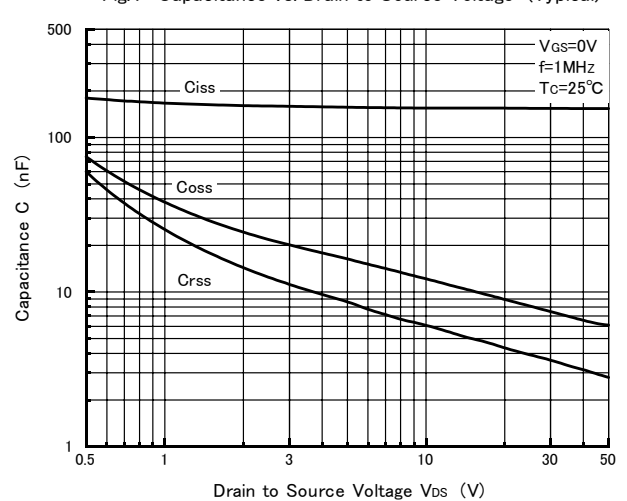


Fig.5- Gate Charge vs. Gate to Source Voltage (Typical)

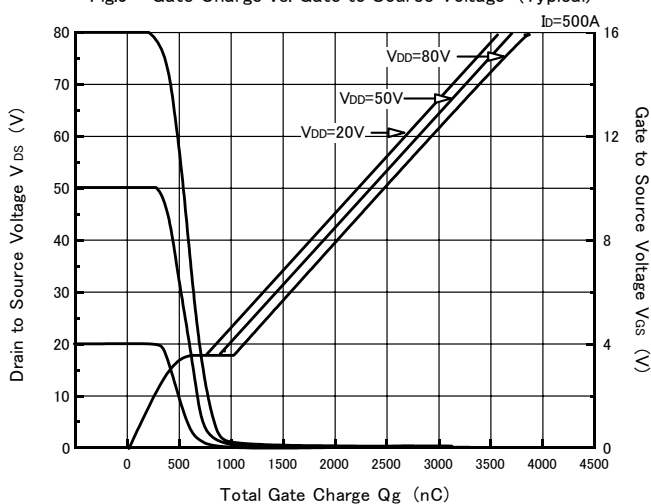


Fig.6- Series Gate Impedance vs. Switching Time (Typical)

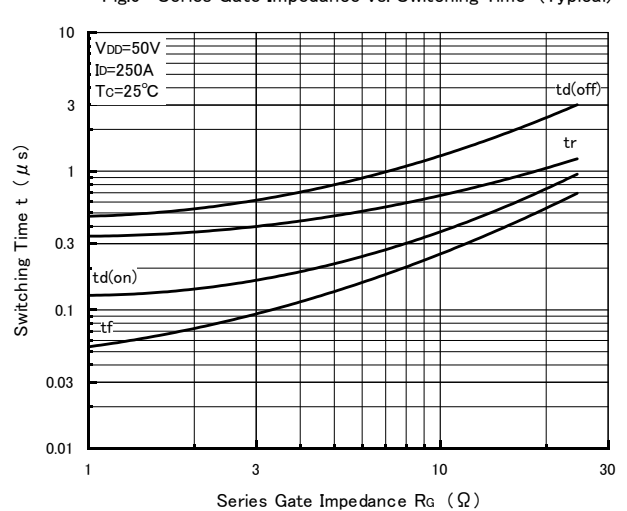


Fig.7- Drain Current vs. Switching Time (Typical)

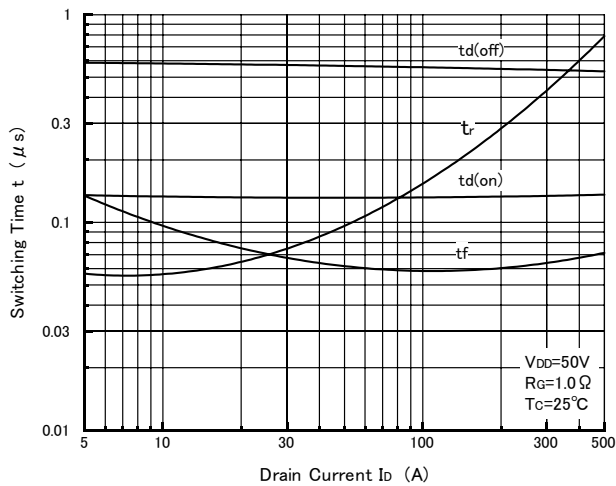


Fig.8- Source to Drain Diode Forward Characteristics (Typical)

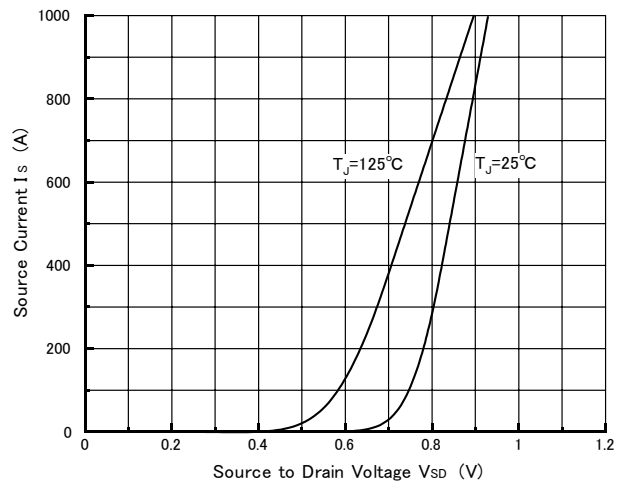


Fig.9- Reverse Recovery Characteristics (Typical)

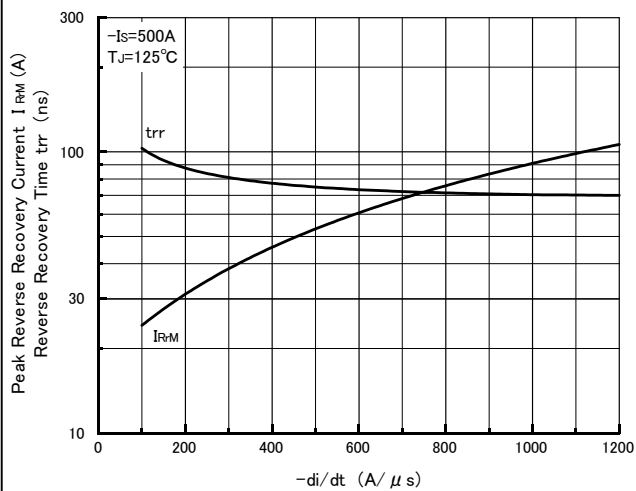


Fig.10- Maximum Transient Thermal Impedance

