

VEC2610

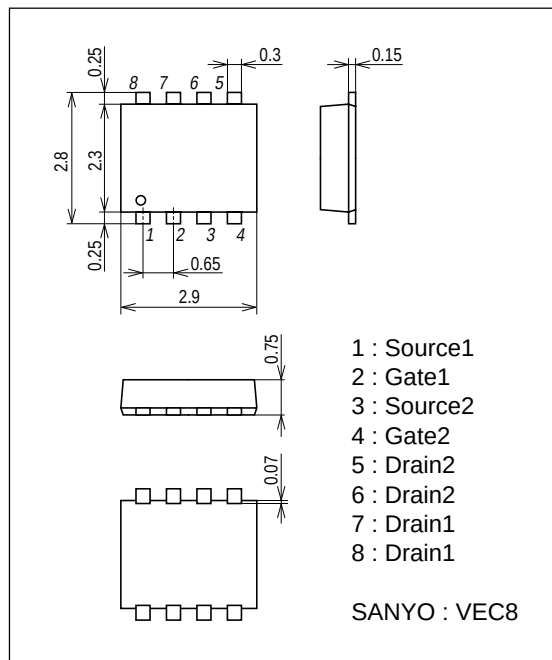
Continued from preceding page.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		15		ns
Rise Time	t_r	See specified Test Circuit.		105		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		50		ns
Fall Time	t_f	See specified Test Circuit.		52		ns
Total Gate Charge	Q_g	$V_{DS}=10V, V_{GS}=4V, I_D=4.5A$		7.6		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=10V, V_{GS}=4V, I_D=4.5A$		1.2		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=10V, V_{GS}=4V, I_D=4.5A$		2.1		nC
Diode Forward Voltage	V_{SD}	$I_S=4.5A, V_{GS}=0V$		0.85	1.2	V
[P-channel]						
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-1mA, V_{GS}=0V$	-20			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-20V, V_{GS}=0V$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1mA$	-0.4		-1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=-10V, I_D=-1.5A$	2.9	4.9		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=-2A, V_{GS}=-4.5V$		62	81	m Ω
	$R_{DS(on)2}$	$I_D=-1A, V_{GS}=-2.5V$		87	120	m Ω
	$R_{DS(on)3}$	$I_D=-0.3A, V_{GS}=-1.8V$		145	205	m Ω
Input Capacitance	C_{iss}	$V_{DS}=-10V, f=1MHz$		680		pF
Output Capacitance	C_{oss}	$V_{DS}=-10V, f=1MHz$		115		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=-10V, f=1MHz$		80		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		13		ns
Rise Time	t_r	See specified Test Circuit.		53		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		77		ns
Fall Time	t_f	See specified Test Circuit.		62		ns
Total Gate Charge	Q_g	$V_{DS}=-10V, V_{GS}=-4.5V, I_D=-3A$		8.2		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS}=-10V, V_{GS}=-4.5V, I_D=-3A$		1.7		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS}=-10V, V_{GS}=-4.5V, I_D=-3A$		2.1		nC
Diode Forward Voltage	V_{SD}	$I_S=-3A, V_{GS}=0V$		-0.88	-1.2	V

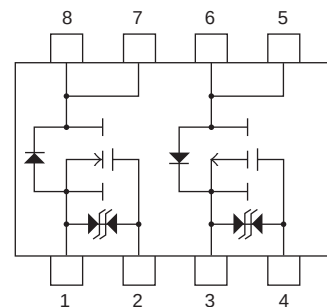
Package Dimensions

unit : mm

7012-002



Electrical Connection

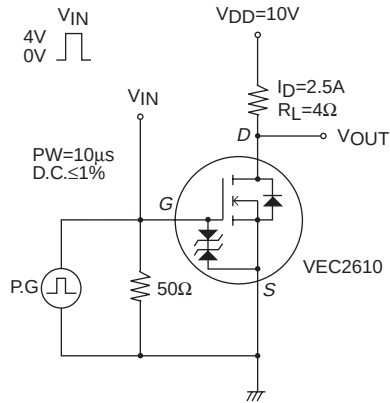


- 1 : Source1
2 : Gate1
3 : Source2
4 : Gate2
5 : Drain2
6 : Drain2
7 : Drain1
8 : Drain1

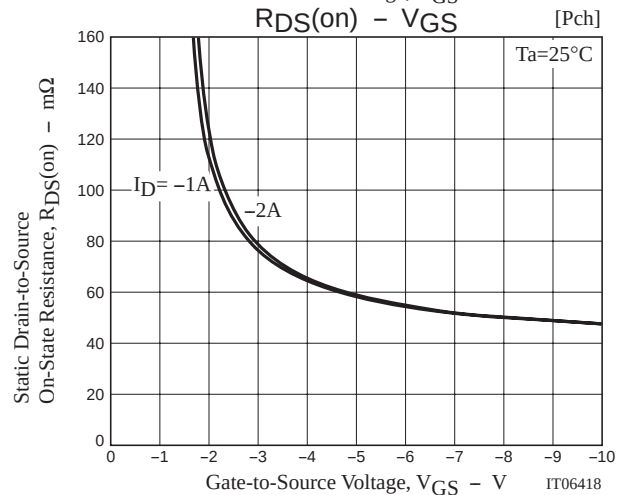
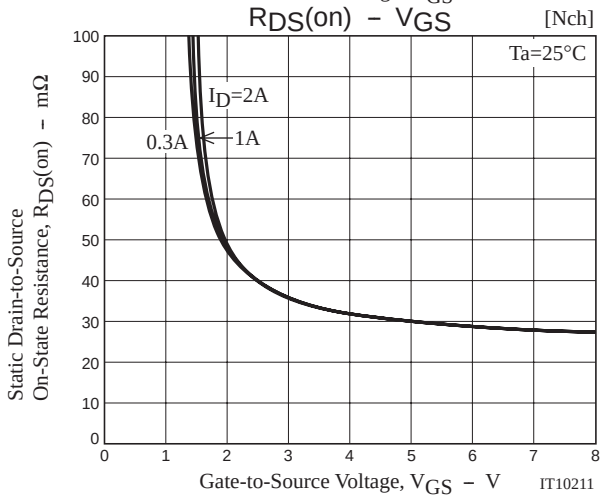
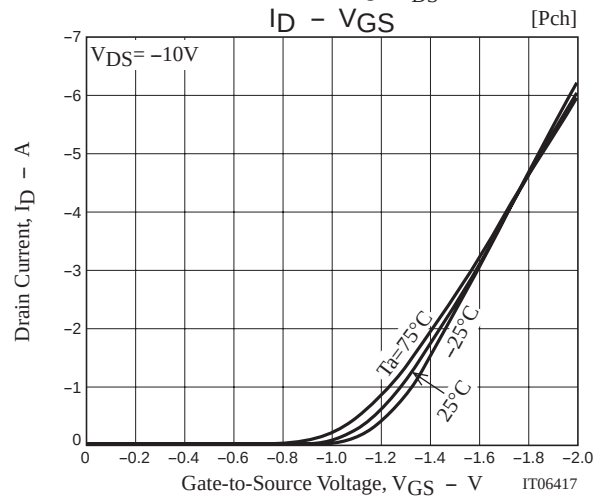
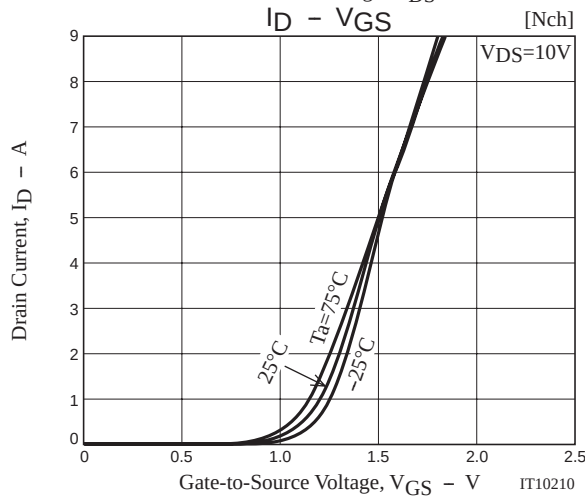
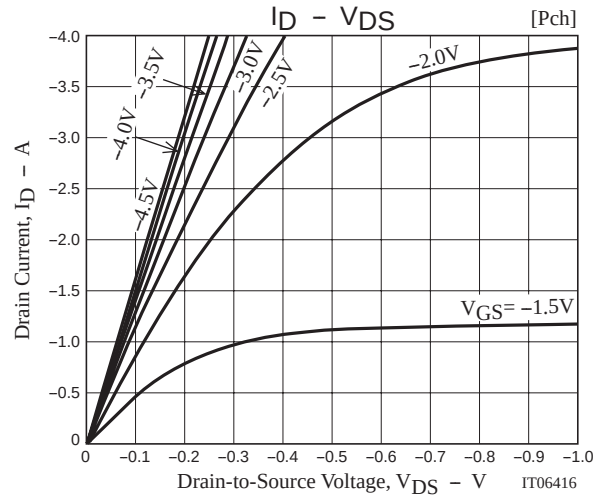
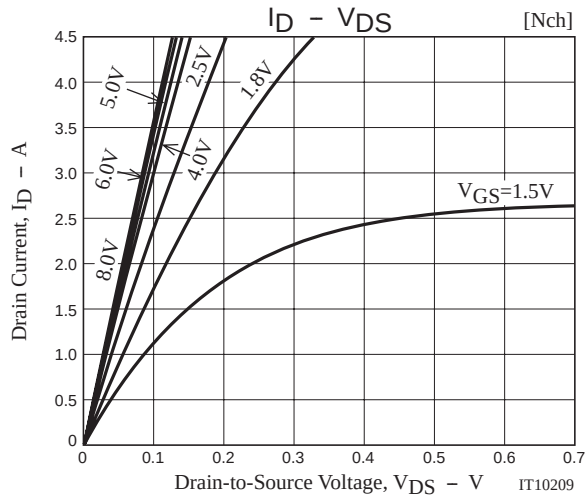
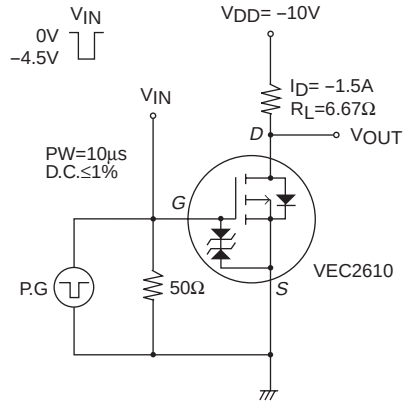
Top view

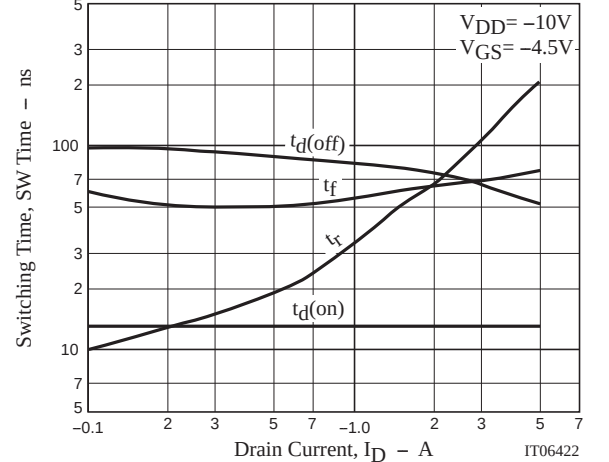
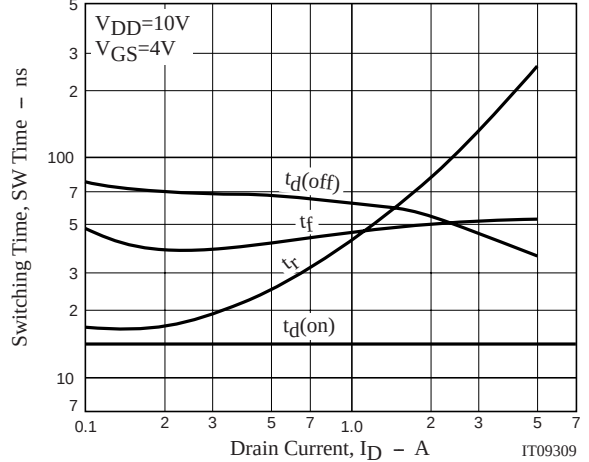
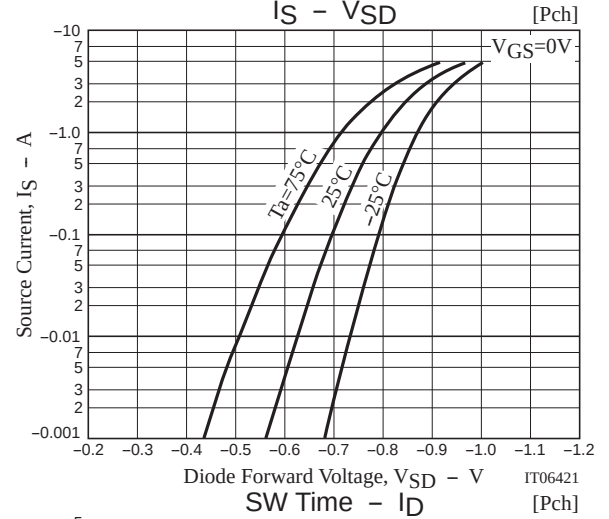
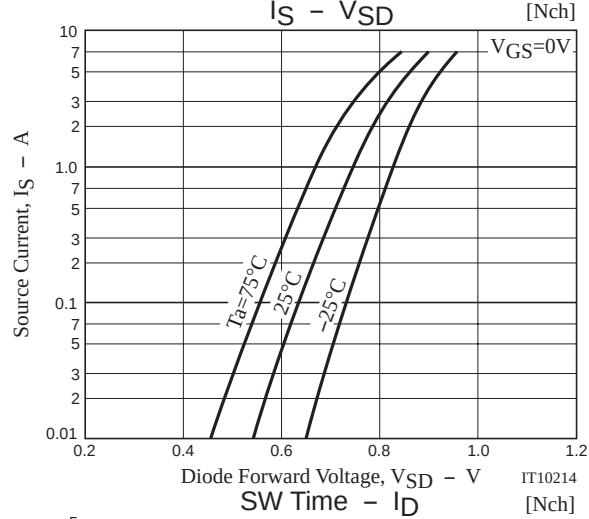
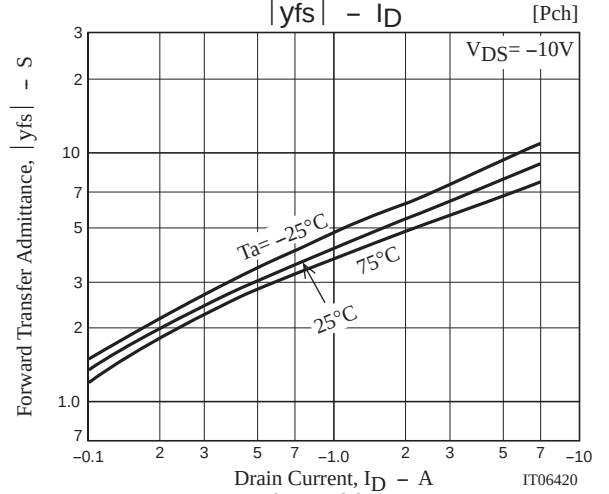
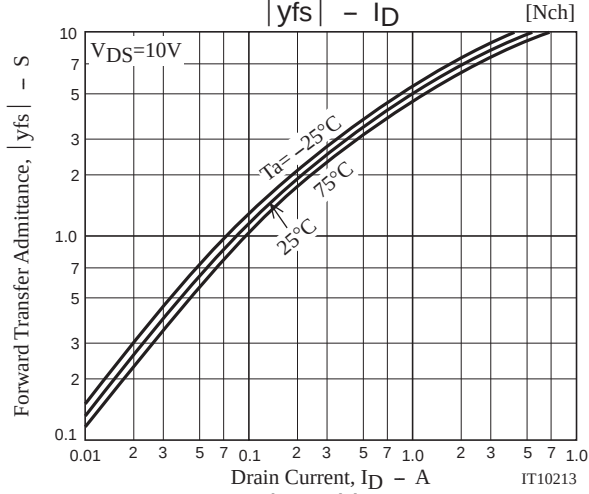
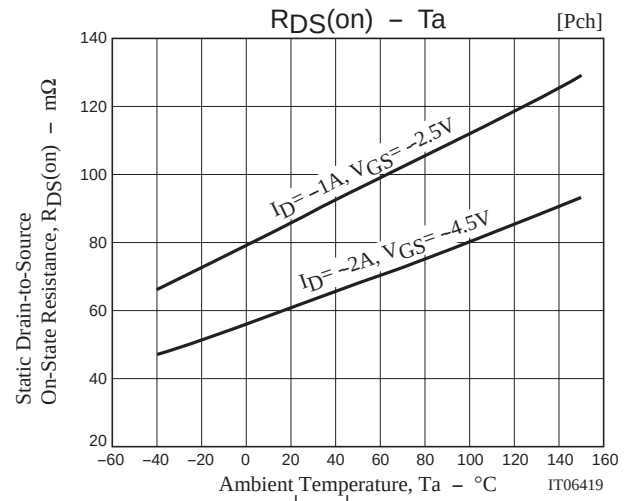
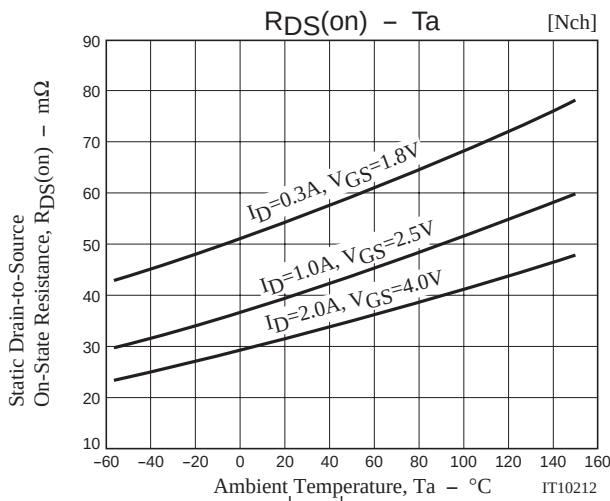
Switching Time Test Circuit

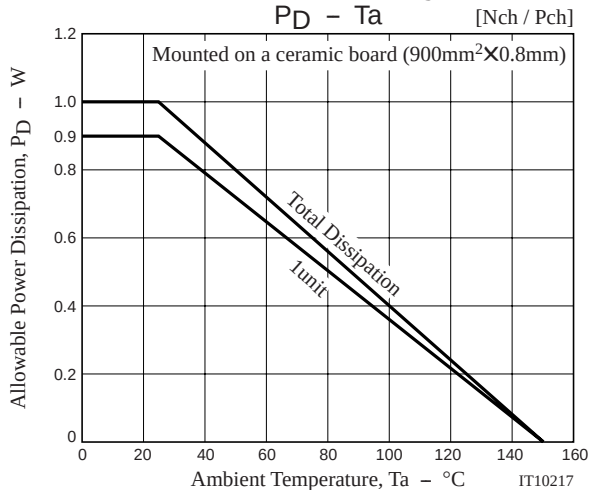
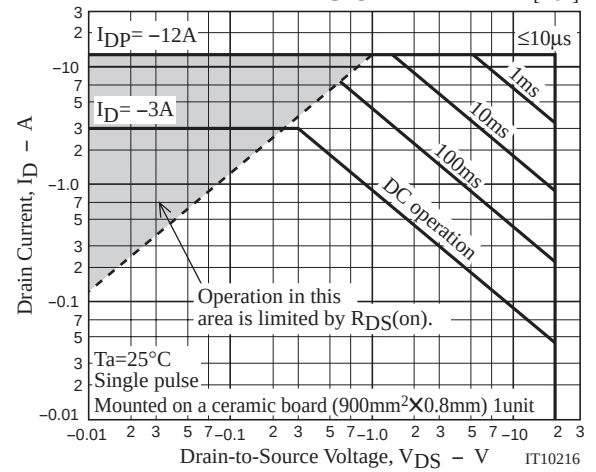
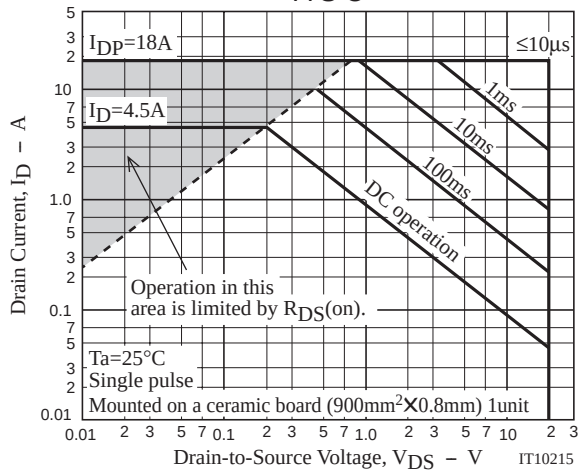
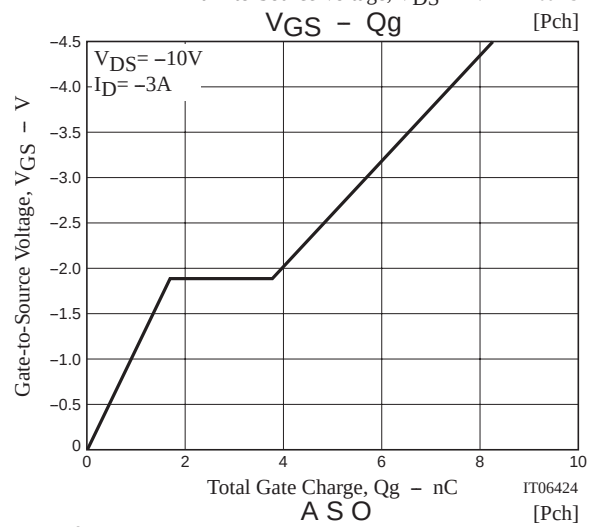
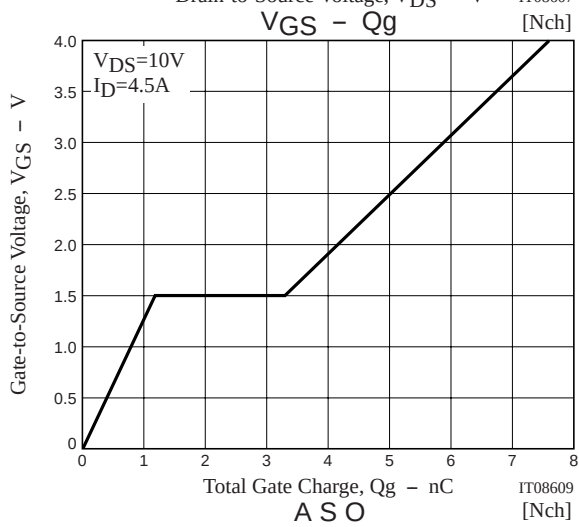
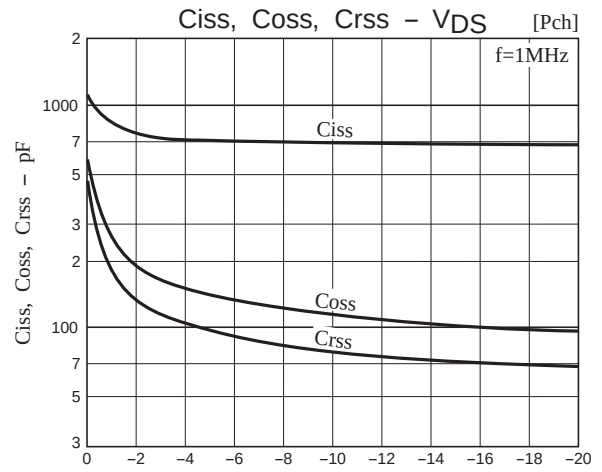
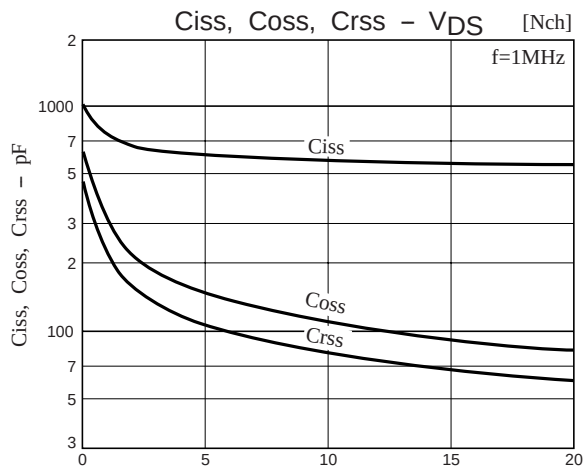
[N-channel]



[P-channel]







Note on usage : Since the VEC2610 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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