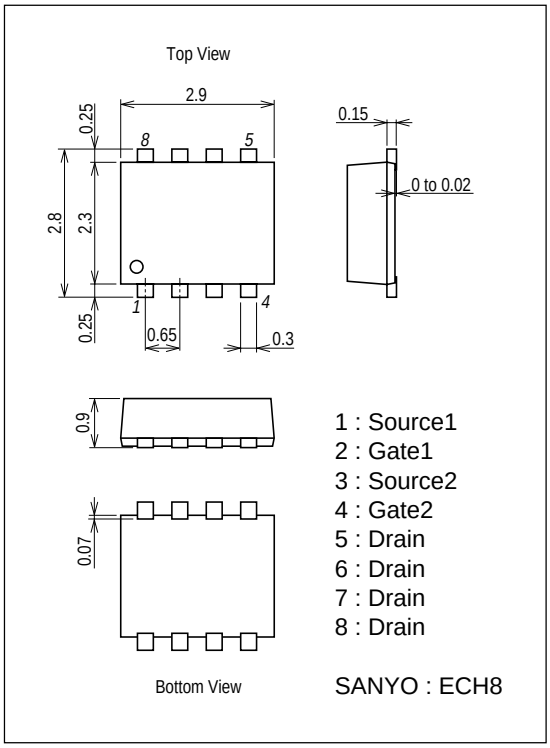
Continued from preceding page.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	$R_{DS}(on)1$	I_D=4A, V_{GS}=8V	9	14	20	mΩ
	$R_{DS}(on)2$	I_D=4A, V_{GS}=4V	11	18	25	mΩ
Input Capacitance	Ciss	V_{DS}=10V, f=1MHz		1280		pF
Output Capacitance	Coss	V_{DS}=10V, f=1MHz		170		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, f=1MHz		105		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		13		ns
Rise Time	t_r	See specified Test Circuit.		48		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		94		ns
Fall Time	t_f	See specified Test Circuit.		36		ns
Total Gate Charge	Qg	V_{DS}=10V, V_{GS}=8V, I_D=7.5A		18.5		nC
Gate-to-Source Charge	Qgs	V_{DS}=10V, V_{GS}=8V, I_D=7.5A		2.7		nC
Gate-to-Drain “Miller” Charge	Qgd	V_{DS}=10V, V_{GS}=8V, I_D=7.5A		3.1		nC
Diode Forward Voltage	V_{SD}	I_S=7.5A, V_{GS}=0V		0.82	1.2	V

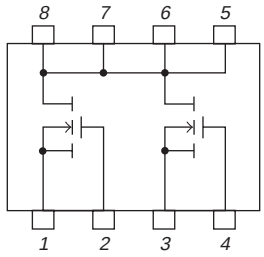
Package Dimensions

unit : mm (typ)

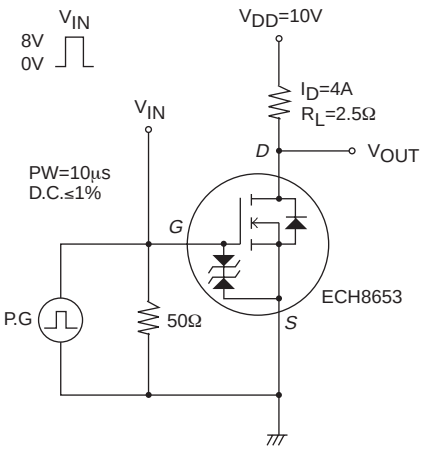
7011A-003

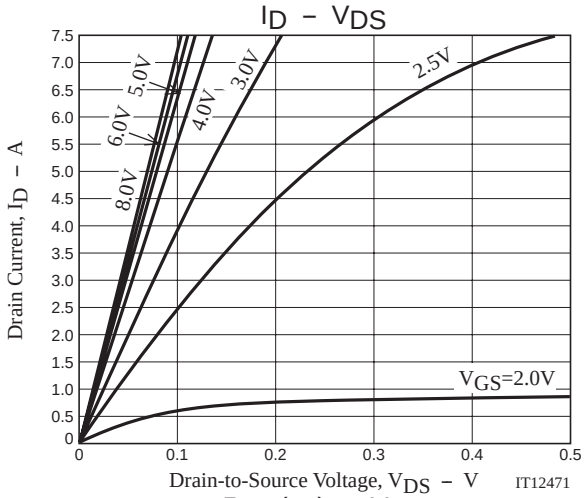


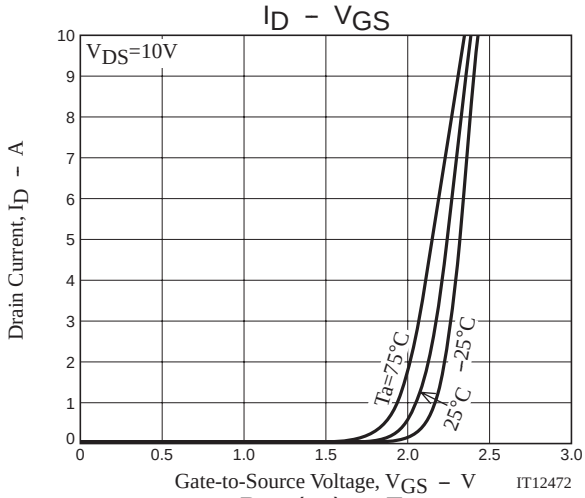
Electrical Connection

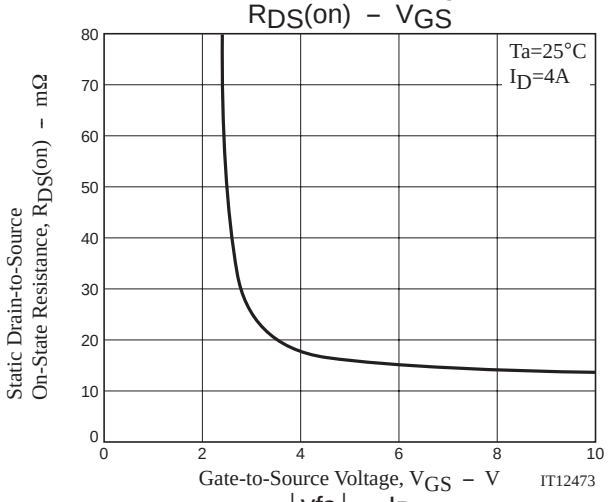


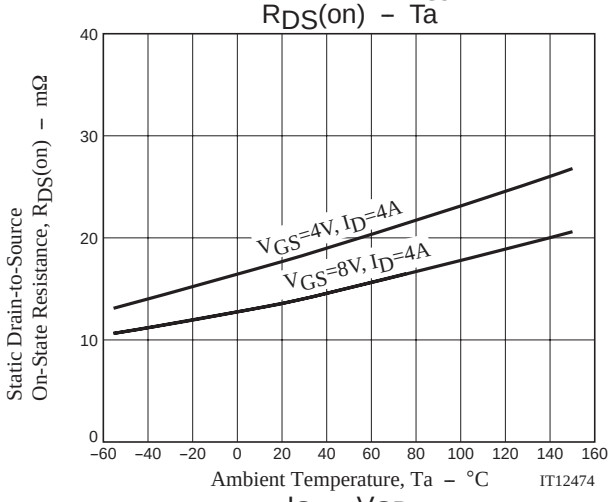
Switching Time Test Circuit

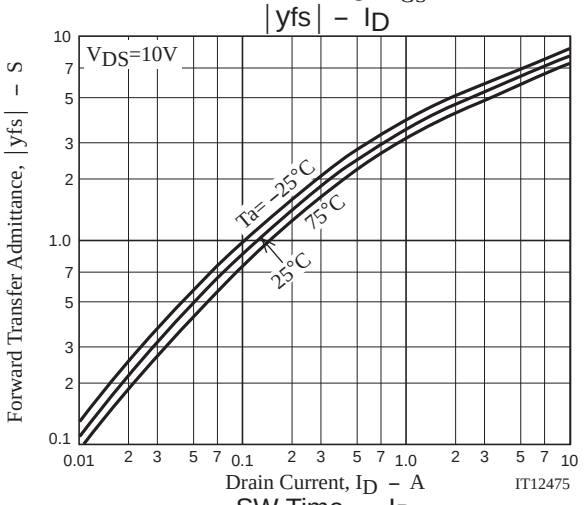


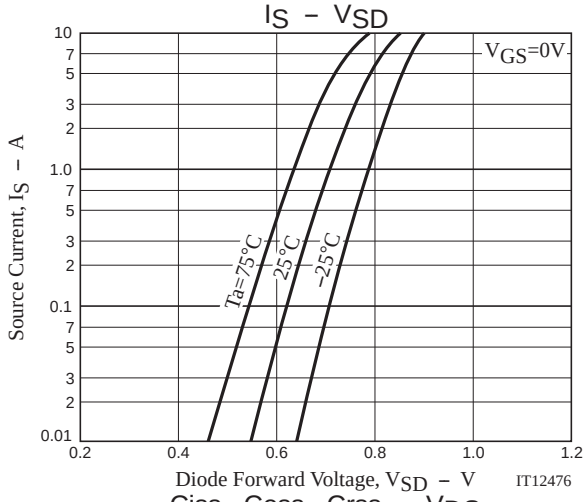


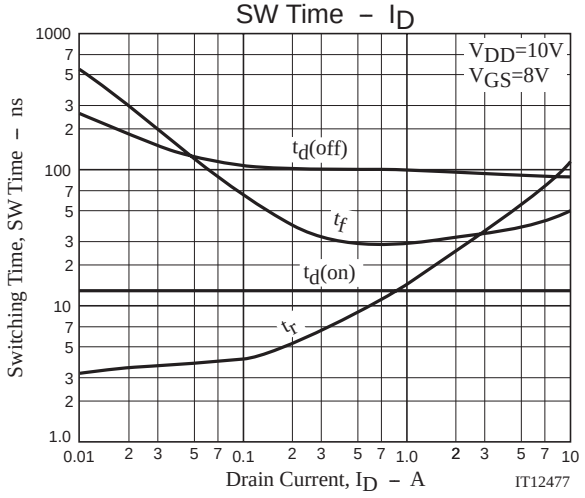


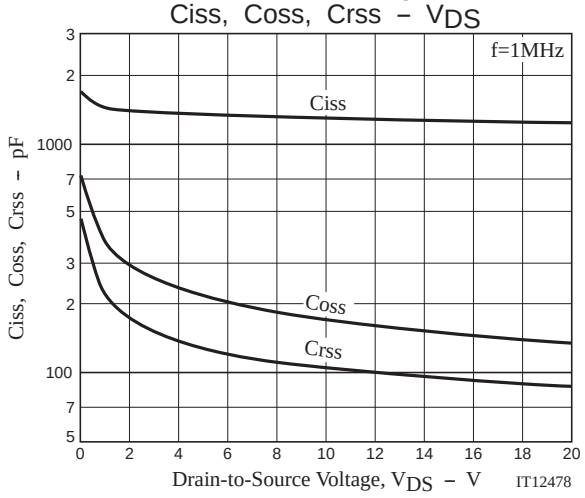


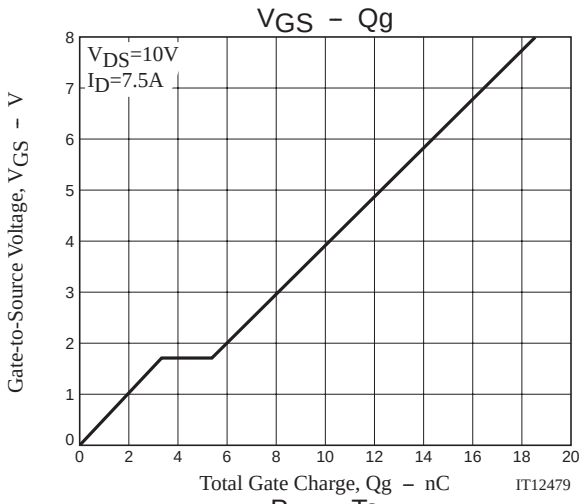


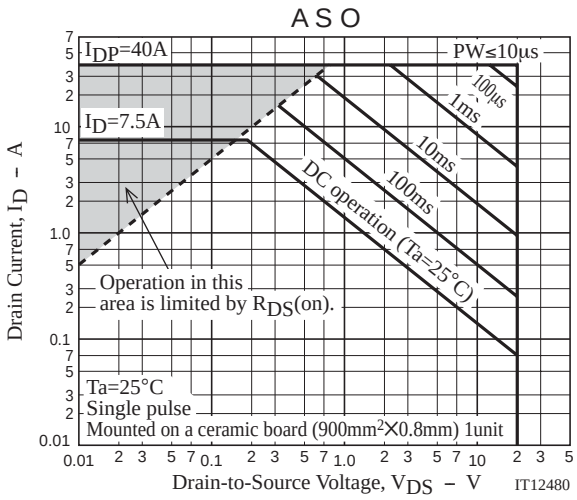


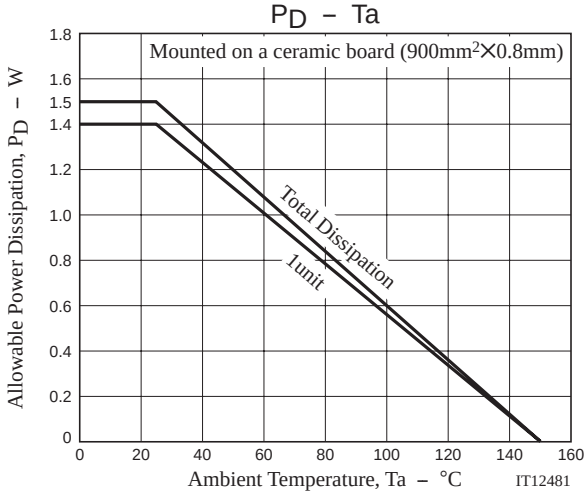












Note on usage : Since the ECH8653 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

This catalog provides information as of May, 2007. Specifications and information herein are subject to change without notice.