Electrical Characteristics at Ta=25°C

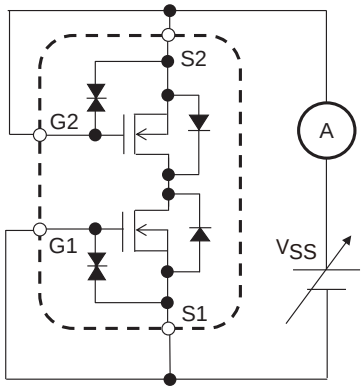
Parameter	Symbol	Conditions		Ratings			Unit
				min	typ	max	
Source-to-Source Breakdown Voltage	$V_{(BR)SSS}$	I_S=1mA, V_{GS}=0V	Test Circuit 1	24			V
Zero-Gate Voltage Source Current	I_{SSS}	V_{SS}=20V, V_{GS}=0V	Test Circuit 1			1	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±8V, V_{SS}=0V	Test Circuit 2			±1	μA
Cutoff Voltage	V_{GS}(off)	V_{SS}=10V, I_S=1mA	Test Circuit 3	0.5		1.3	V
Forward Transfer Admittance	| yfs |	V_{SS}=10V, I_S=3A	Test Circuit 4		15.5		S
Static Source-to-Source On-State Resistance	R_{SS}(on)1	I_S=3A, V_{GS}=4.5V	Test Circuit 5	6.6	9.5	11.5	mΩ
	R_{SS}(on)2	I_S=3A, V_{GS}=4.0V	Test Circuit 5	7.0	10	12	mΩ
	R_{SS}(on)3	I_S=3A, V_{GS}=3.8V	Test Circuit 5	7.3	10.5	13	mΩ
	R_{SS}(on)4	I_S=3A, V_{GS}=3.1V	Test Circuit 5	8.0	11.5	15	mΩ
	R_{SS}(on)5	I_S=3A, V_{GS}=2.5V	Test Circuit 5	9.0	13	17	mΩ
Turn-ON Delay Time	t_d(on)	V_{DD}=10V, V_{GS}=4.5V, I_S=3A	Test Circuit 7		280		ns
Rise Time	t_r				630		ns
Turn-OFF Delay Time	t_d(off)				53000		ns
Fall Time	t_f				47000		ns
Total Gate Charge	Qg	V_{DD}=10V, V_{GS}=4.5V, I_S=13A	Test Circuit 8		48		nC
Forward Source-to-Source Voltage	$V_{F(S-S)}$	I_S=3A, V_{GS}=0V	Test Circuit 6		0.76	1.2	V

Ordering Information

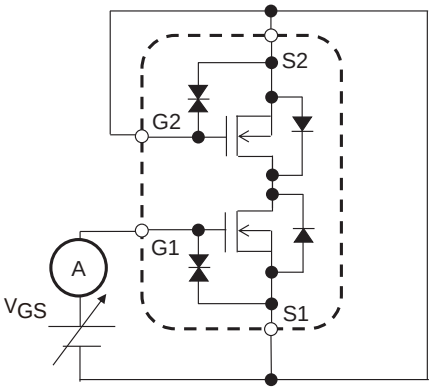
Device	Package	Shipping	memo
EFC6601R-TR	EFCP	5,000pcs./reel	Pb Free and Halogen Free

Test circuits are example of measuring FET1 side

Test Circuit 1
I_{SSS}

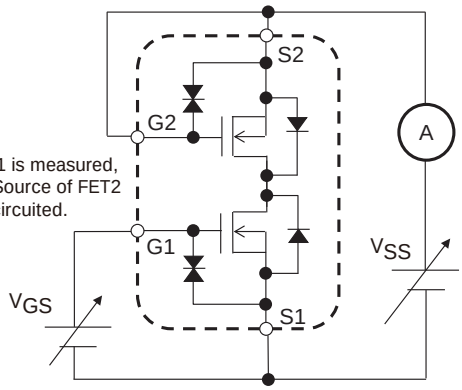


Test Circuit 2
I_{GSS}



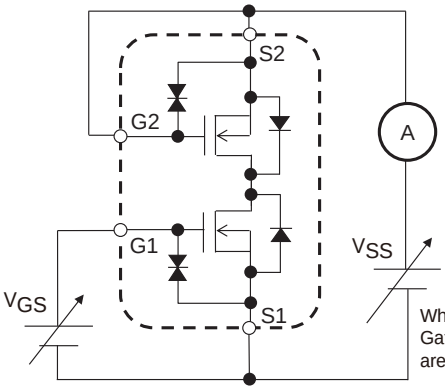
When FET1 is measured, Gate and Source of FET2 are short-circuited.

Test Circuit 3
$V_{GS(off)}$



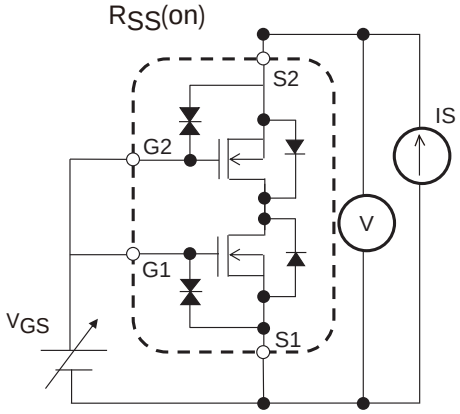
When FET1 is measured, Gate and Source of FET2 are short-circuited.

Test Circuit 4
$|y_{fs}|$

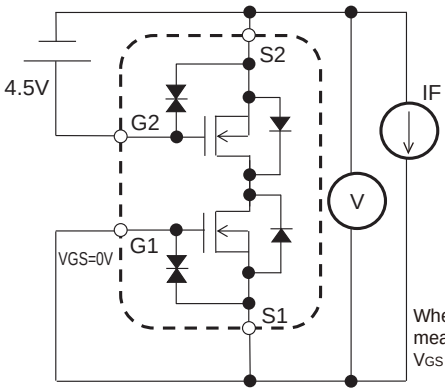


When FET1 is measured, Gate and Source of FET2 are short-circuited.

Test Circuit 5
$R_{SS(on)}$

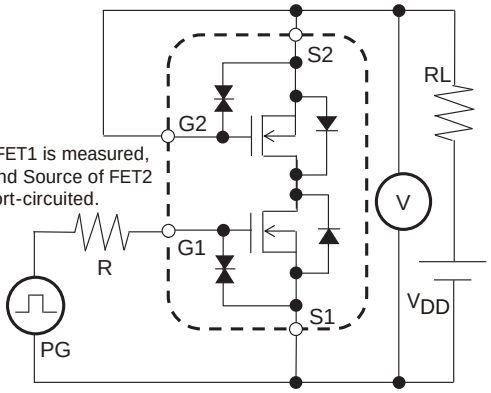


Test Circuit 6
$V_{F(S-S)}$



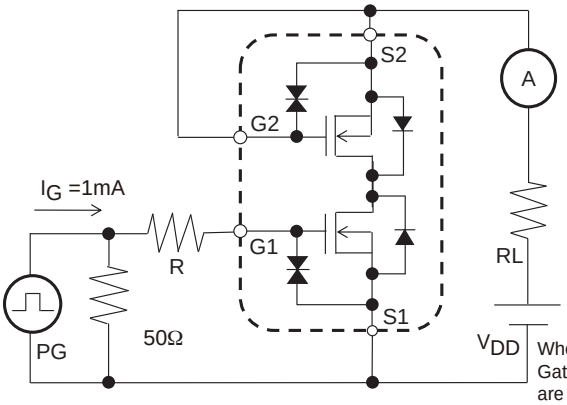
When FET1 is measured,+4.5V is added to V_{GS} of FET2.

Test Circuit 7
$t_{d(on)}$, t_r, $t_{d(off)}$, t_f

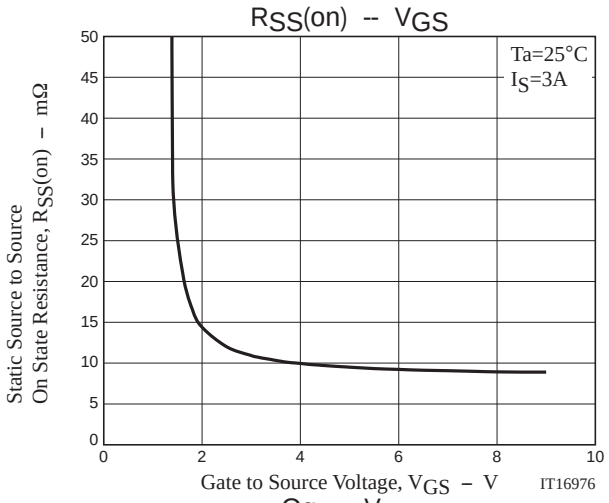


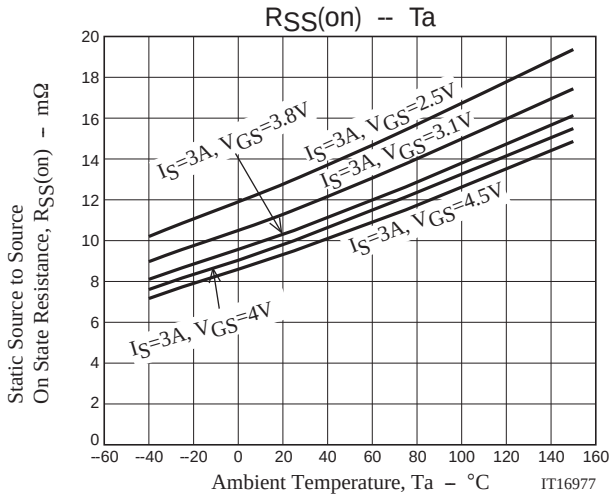
When FET1 is measured, Gate and Source of FET2 are short-circuited.

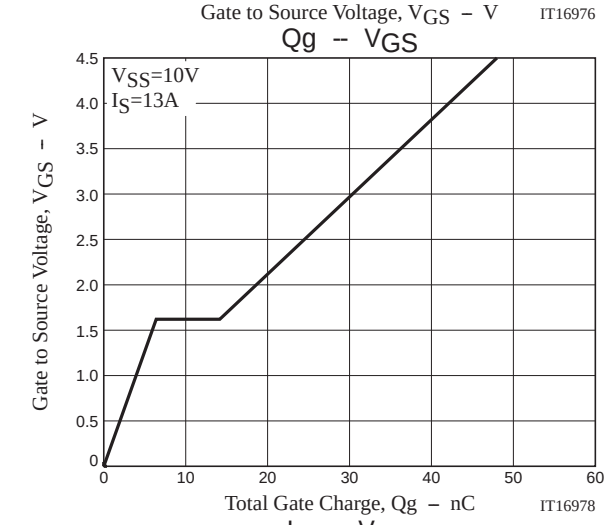
Test Circuit 8
Qg

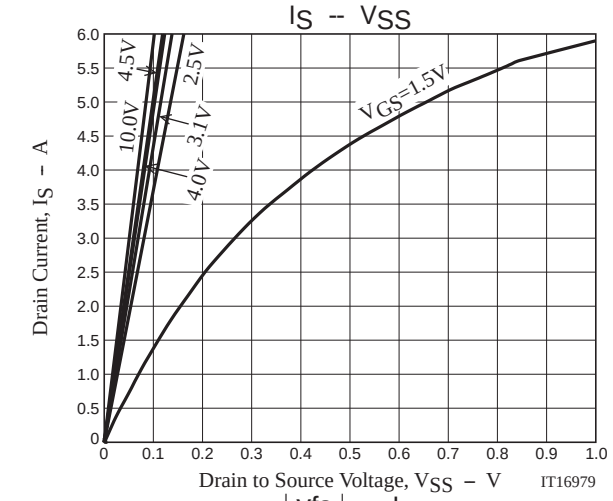


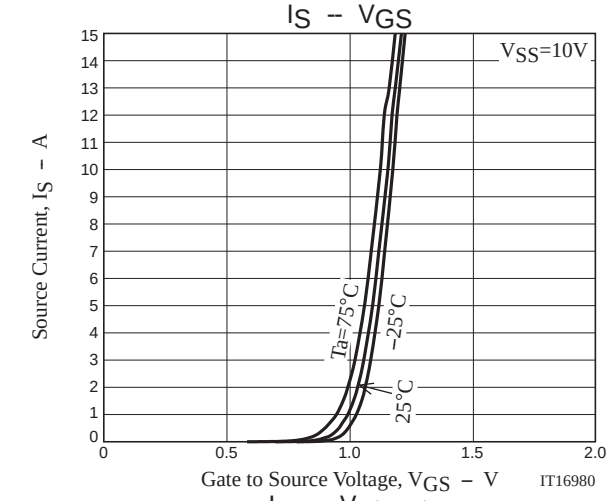
When FET1 is measured, Gate and Source of FET2 are short-circuited.

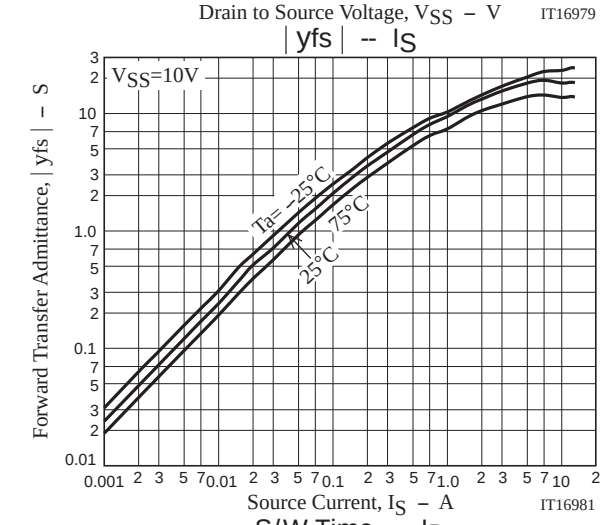


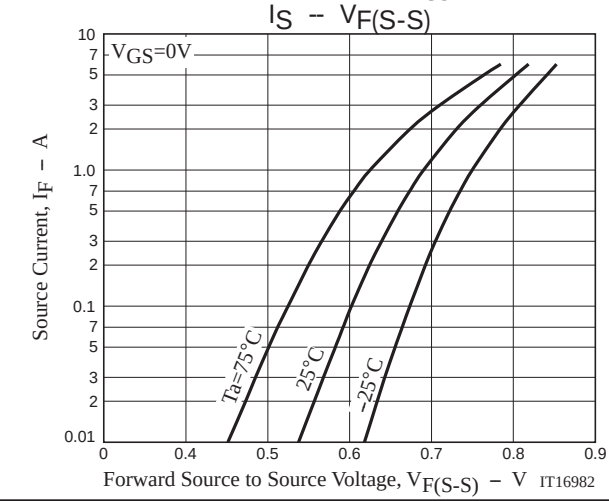


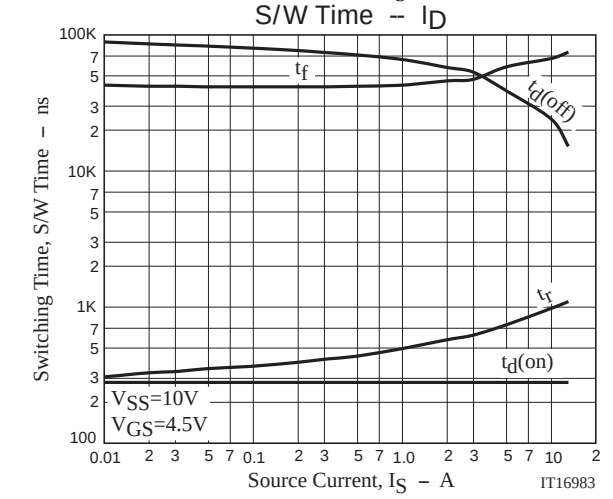


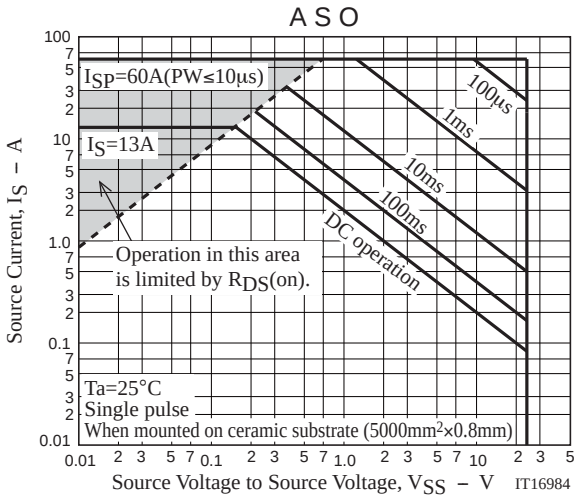


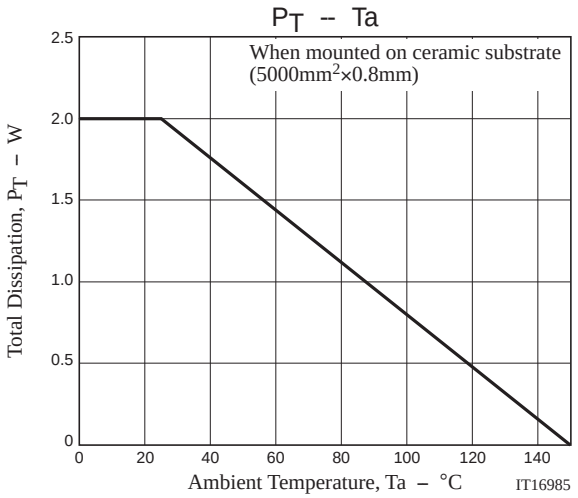










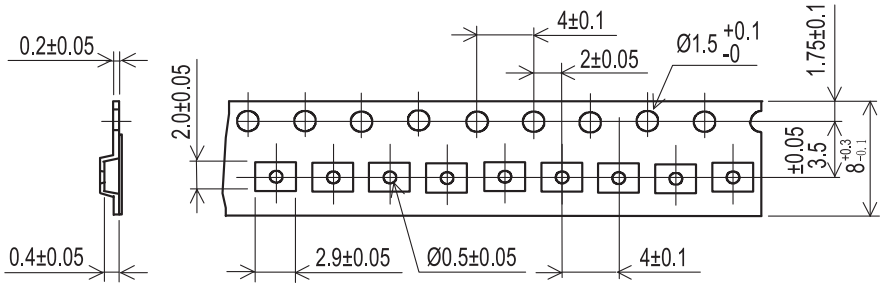


Taping Specification

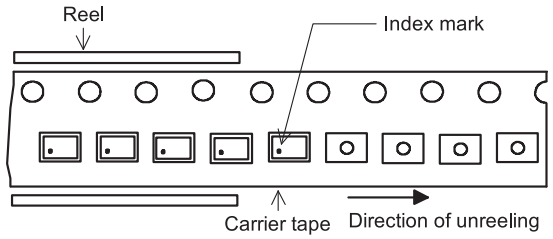
EFC6601R-TR

1.Taping Configuration

1-1 .Carrier Tape Size (unit:mm)

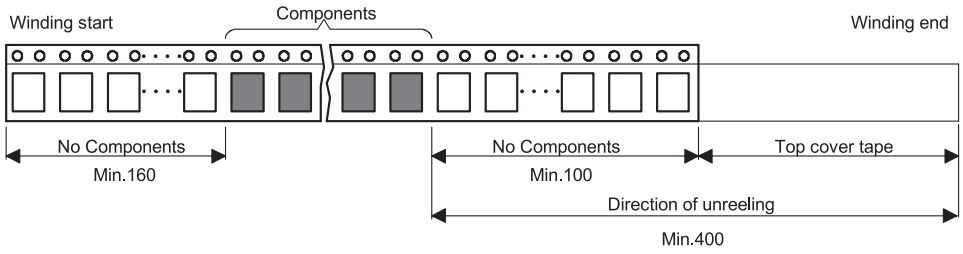


1-2 .Device Placement Direction



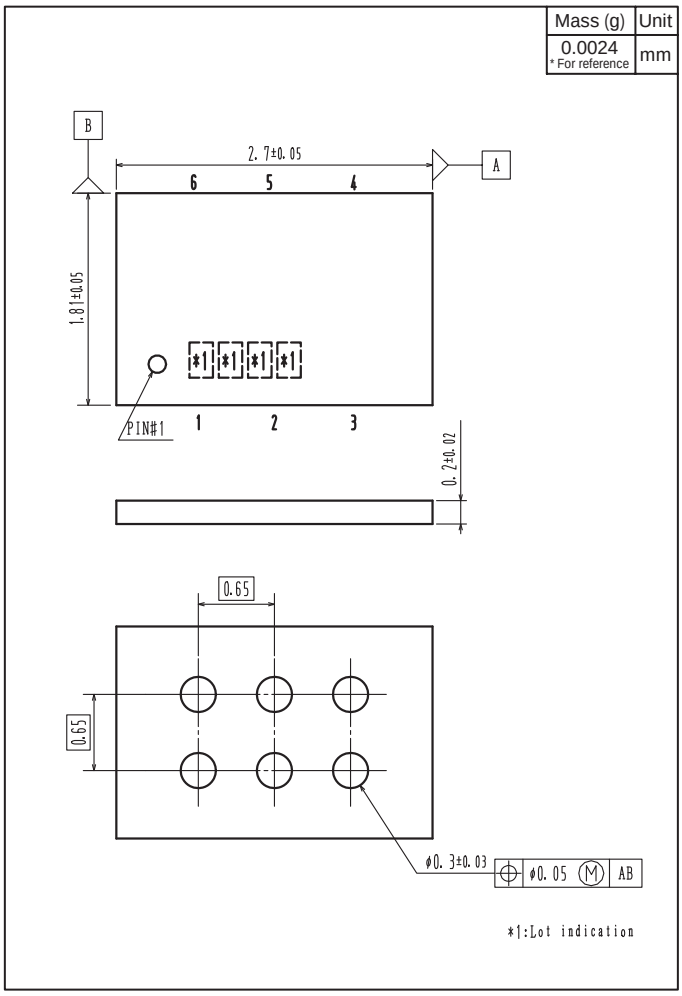
Packing type・・・・・TR

1-3 .Leader portion and Trailer portion (unit:mm)

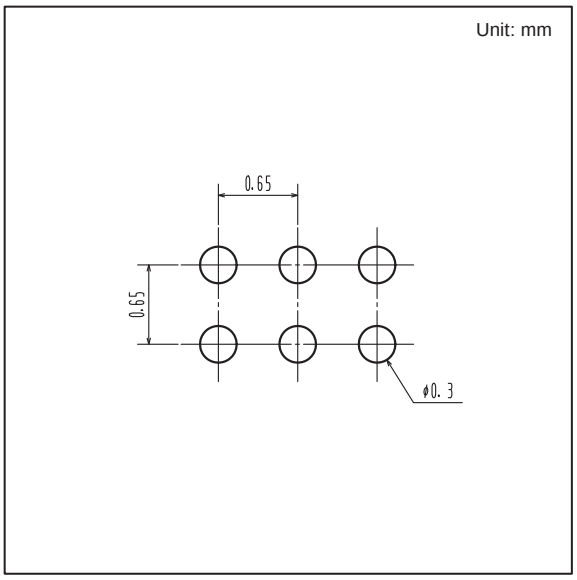


Outline Drawing

EFC6601R-TR



Land Pattern Example



Note on usage : Since the EFC6601R is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.