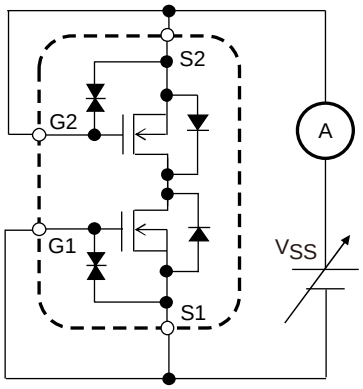
Electrical Characteristics at Ta = 25°C

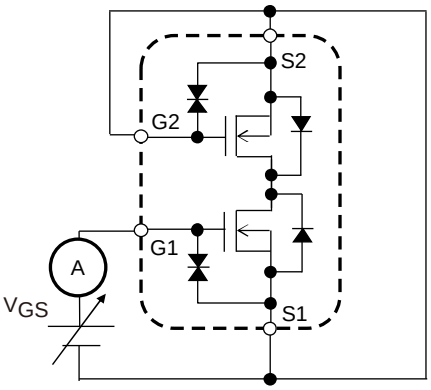
Parameter	Symbol	Conditions		Ratings			Unit
				min	typ	max	
Source to Source Breakdown Voltage	$V_{(BR)SSS}$	I_S=1mA, V_{GS}=0V	Test Circuit 1	24			V
Zero-Gate Voltage Source Current	I_{SSS}	V_{SS}=20V, V_{GS}=0V	Test Circuit 1			1	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±8V, V_{SS}=0V	Test 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		5.8		S
Static Source to Source On-State Resistance	R_{SS}(on)1	I_S=3A, V_{GS}=4.5V	Test Circuit 5	13.5	19.8	23	mΩ
	R_{SS}(on)2	I_S=3A, V_{GS}=4.0V	Test Circuit 5	14	20.5	24	mΩ
	R_{SS}(on)3	I_S=3A, V_{GS}=3.7V	Test Circuit 5	14.5	21	25.5	mΩ
	R_{SS}(on)4	I_S=3A, V_{GS}=3.1V	Test Circuit 5	14.9	23	30	mΩ
	R_{SS}(on)5	I_S=3A, V_{GS}=2.5V	Test Circuit 5	18.5	27	35	mΩ
Turn-ON Delay Time	t_d(on)	V_{SS}=10V, V_{GS}=4.5V, I_S=3A	Test Circuit 7		340		ns
Rise Time	t_r				440		ns
Turn-OFF Delay Time	t_d(off)				24400		ns
Fall Time	t_f				22400		ns
Total Gate Charge	Qg	V_{SS}=10V, V_{GS}=4.5V, I_S=6A	Test Circuit 8		21.7		nC
Forward Source to Source Voltage	$V_{F(S-S)}$	I_S=3A, V_{GS}=0V	Test Circuit 6		0.8	1.2	V

Test circuits are example of measuring FET1 side

Test Circuit 1
I_{SSS}

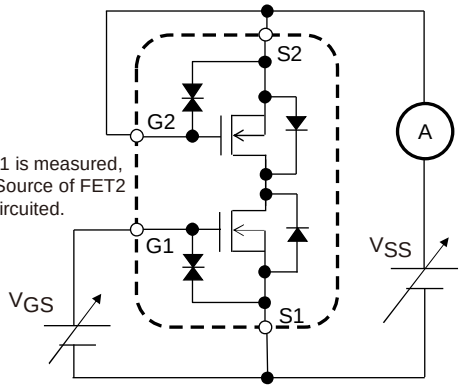


Test Circuit 2
I_{GSS}



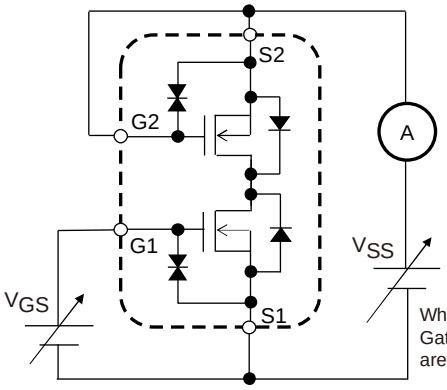
When FET1 is measured, Gate and Source of FET2 are short-circuited.

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



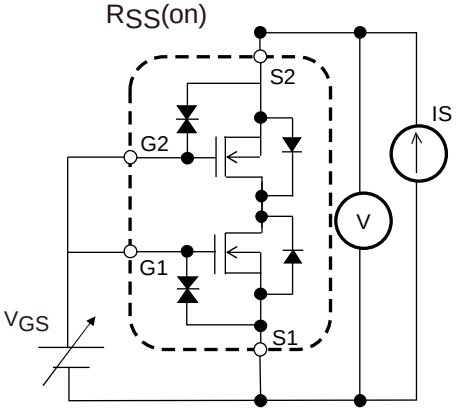
When FET1 is measured, Gate and Source of FET2 are short-circuited.

Test Circuit 4
| yfs |

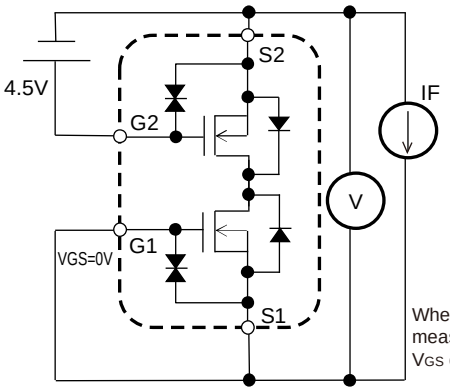


When FET1 is measured, Gate and Source of FET2 are short-circuited.

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

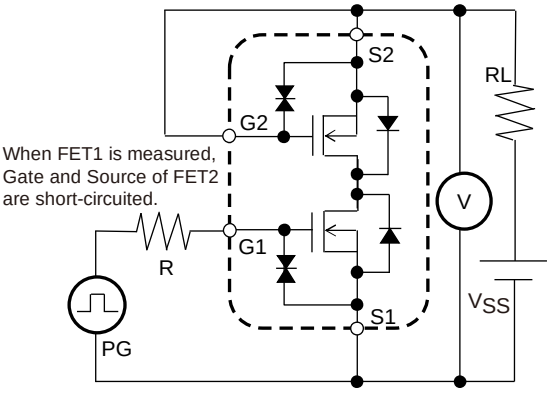


Test Circuit 6
$V_{F(S-S)}$



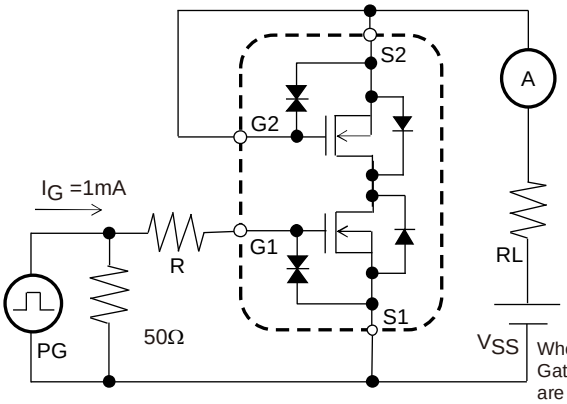
When FET1 is measured,+4.5V is added to V_{GS} of FET2.

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

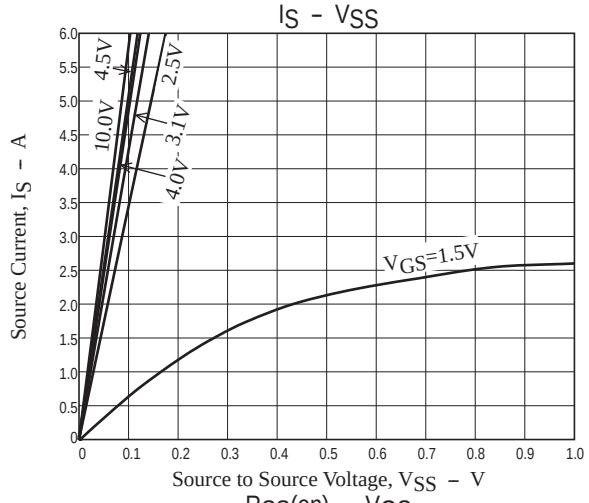


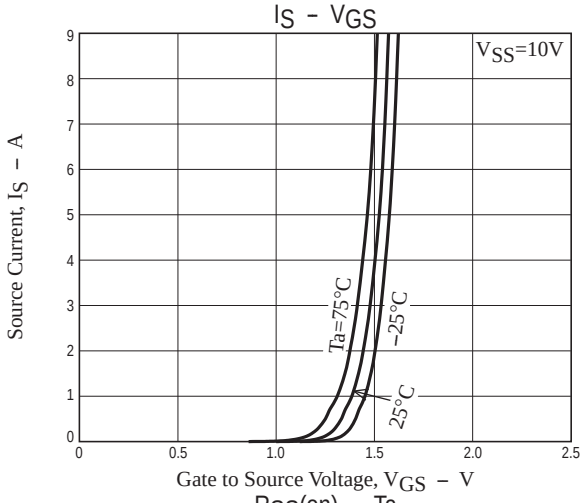
When FET1 is measured, Gate and Source of FET2 are short-circuited.

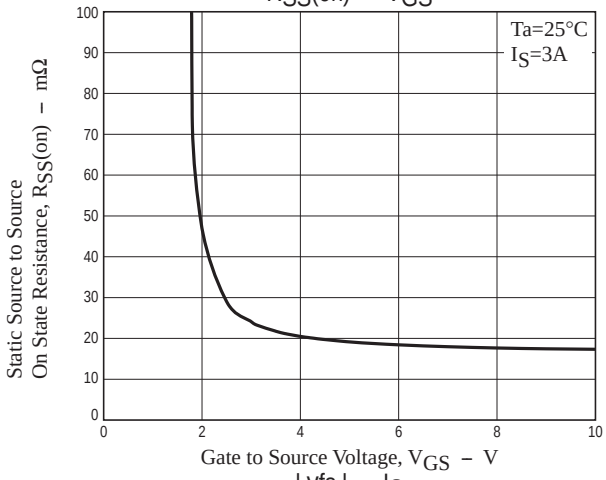
Test Circuit 8
Qg

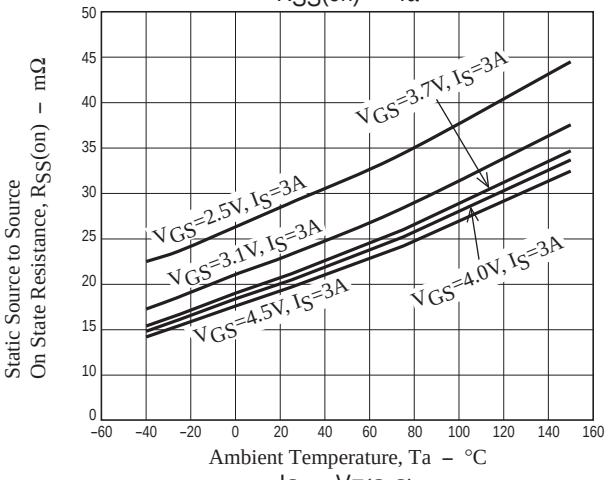


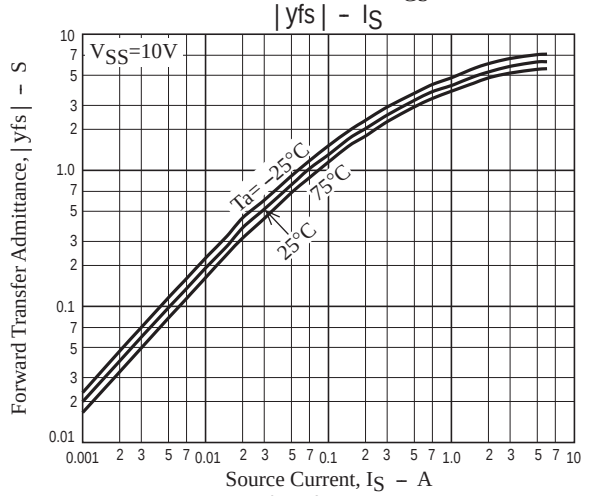
When FET1 is measured, Gate and Source of FET2 are short-circuited.

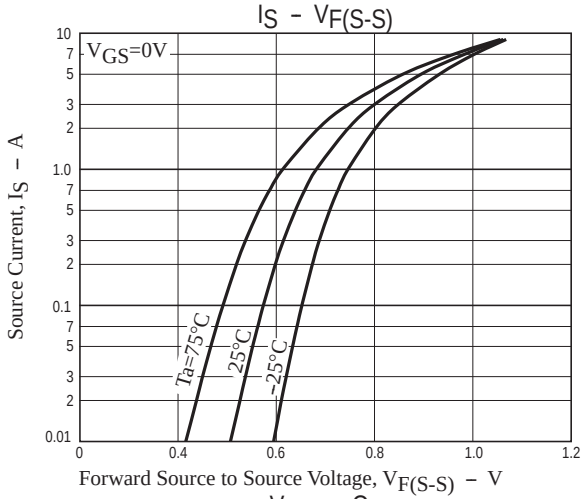


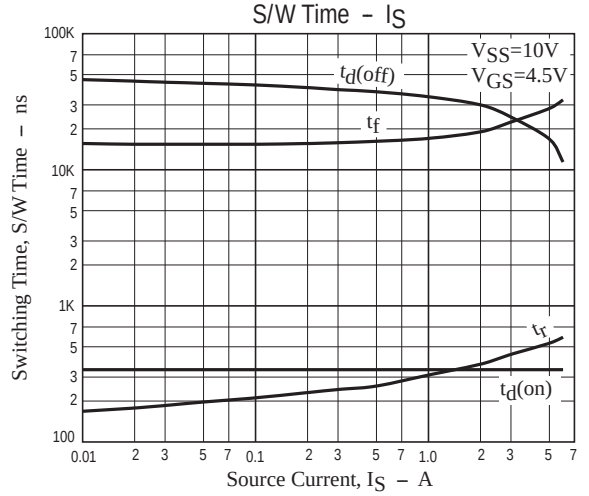


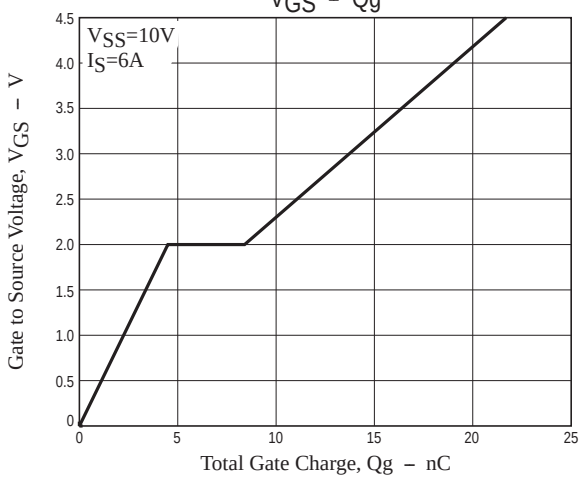


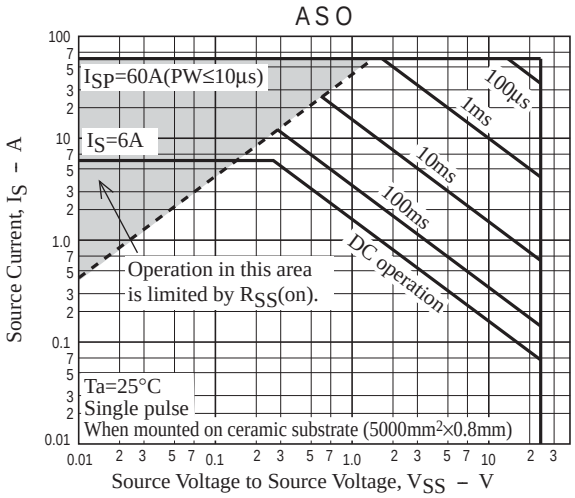


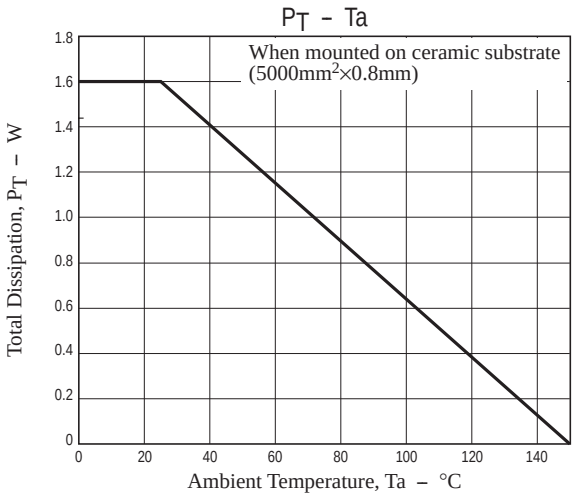










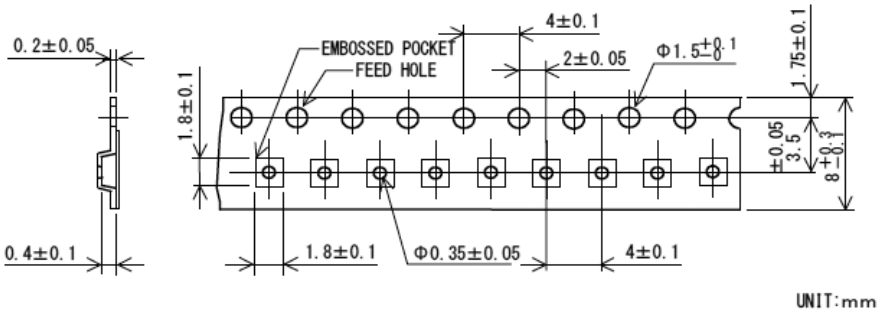


Taping Specification

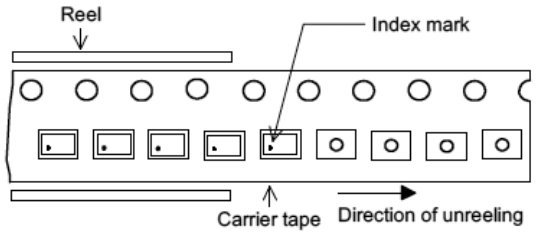
EFC4619R-TR

1.Taping Configuration

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

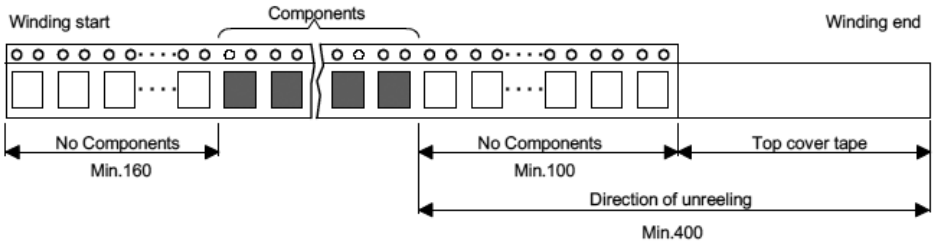


1- 2 .Device Placement Direction



Packing type····· TR

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

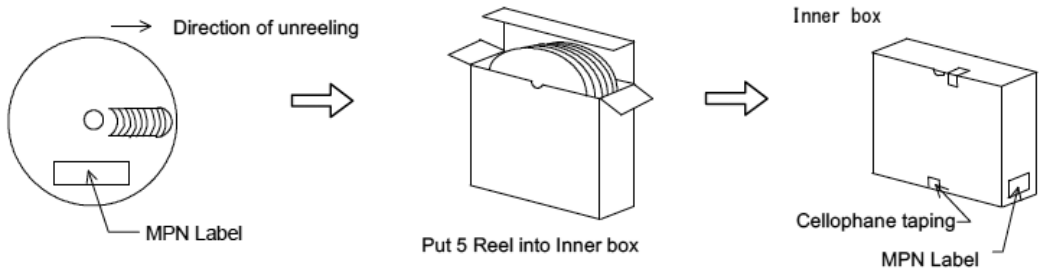


Packing Format

Carrier Tape code	Package code	Maximum Number of devices contained. (pcs.)			Packing Format	
		Reel	Inner box		Inner box BOX(C-1)	
1818X04	EFCP1616-4CE-022	5,000	25,000		5reels contained. Dimensions:mm 183×72×185	

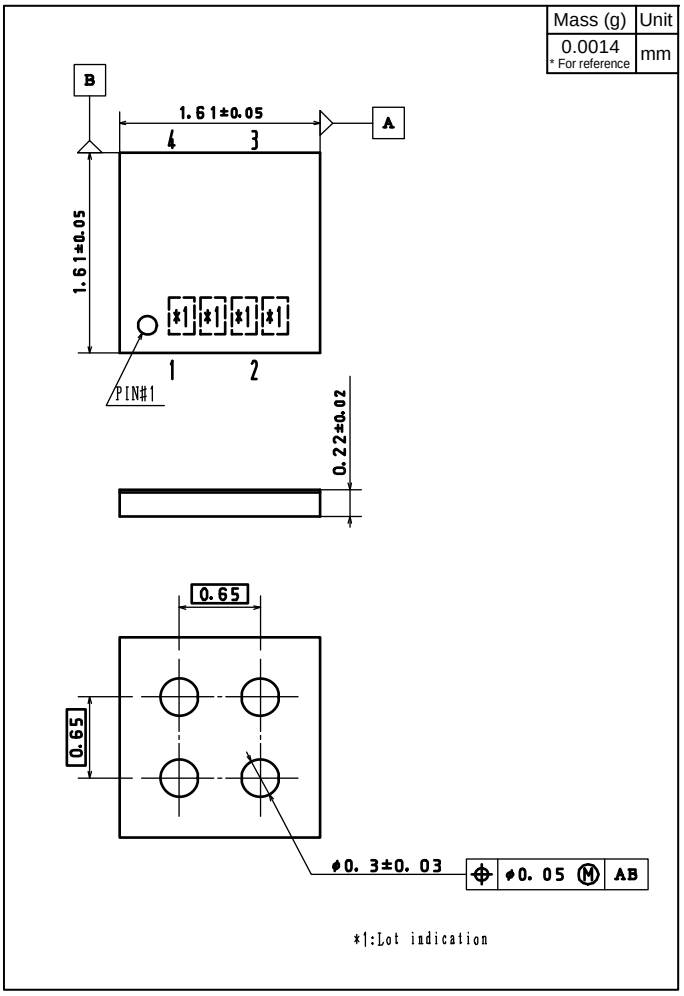
MPN Label

Packing Method

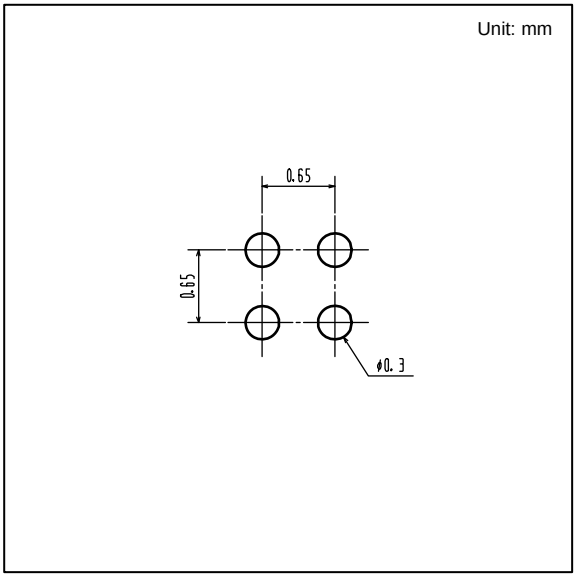


Outline Drawing

EFC4619R-TR



Land Pattern Example



Note on usage : Since the EFC4619R is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.