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12314HK/51513TKIM TC-00002912 No.A2180-1/9

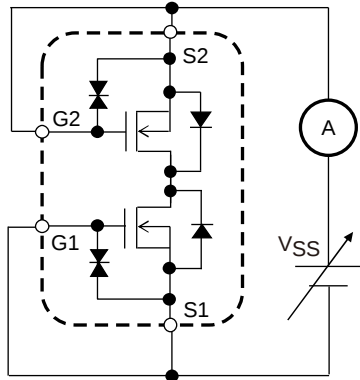
EFC4621R

Electrical Characteristics at $T_a = 25^{\circ}\text{C}$

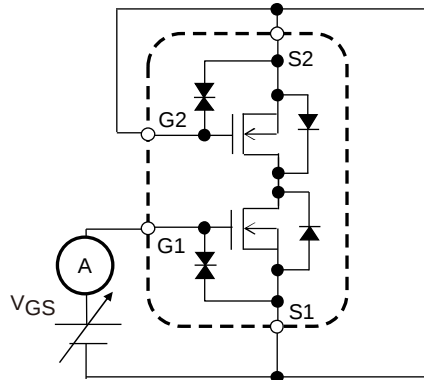
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Source to Source Breakdown Voltage	$V_{(BR)SSS}$	$I_S=1\text{mA}$, $V_{GS}=0\text{V}$ Test Circuit 1	24			V
Zero-Gate Voltage Source Current	I_{SSS}	$V_{SS}=20\text{V}$, $V_{GS}=0\text{V}$ Test Circuit 1			1	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8\text{V}$, $V_{SS}=0\text{V}$ Test Circuit 2			± 1	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{SS}=10\text{V}$, $I_S=1\text{mA}$ Test Circuit 3	0.5		1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{SS}=10\text{V}$, $I_S=3\text{A}$ Test Circuit 4		7.3		S
Static Source to Source On-State Resistance	$R_{SS(on)1}$	$I_S=3\text{A}$, $V_{GS}=4.5\text{V}$ Test Circuit 5	10.8	15.5	18	$\text{m}\Omega$
	$R_{SS(on)2}$	$I_S=3\text{A}$, $V_{GS}=4.0\text{V}$ Test Circuit 5	11.1	16	19	$\text{m}\Omega$
	$R_{SS(on)3}$	$I_S=3\text{A}$, $V_{GS}=3.7\text{V}$ Test Circuit 5	11.5	16.5	20	$\text{m}\Omega$
	$R_{SS(on)4}$	$I_S=3\text{A}$, $V_{GS}=3.1\text{V}$ Test Circuit 5	12.5	18	23.5	$\text{m}\Omega$
	$R_{SS(on)5}$	$I_S=3\text{A}$, $V_{GS}=2.5\text{V}$ Test Circuit 5	14.9	23	30	$\text{m}\Omega$
Turn-ON Delay Time	$t_d(on)$	$V_{SS}=10\text{V}$, $V_{GS}=4.5\text{V}$, $I_S=3\text{A}$ Test Circuit 7		340		ns
Rise Time	t_r			600		ns
Turn-OFF Delay Time	$t_d(off)$			26000		ns
Fall Time	t_f			28000		ns
Total Gate Charge	Q_g	$V_{SS}=10\text{V}$, $V_{GS}=4.5\text{V}$, $I_S=9\text{A}$ Test Circuit 8		29		nC
Forward Source to Source Voltage	$V_{F(S-S)}$	$I_S=3\text{A}$, $V_{GS}=0\text{V}$ Test Circuit 6		0.77	1.2	V

Test circuits are example of measuring FET1 side

Test Circuit 1
 I_{SS}

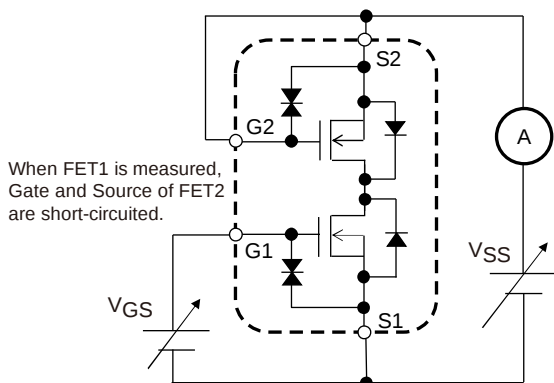


Test Circuit 2
 I_{GSS}

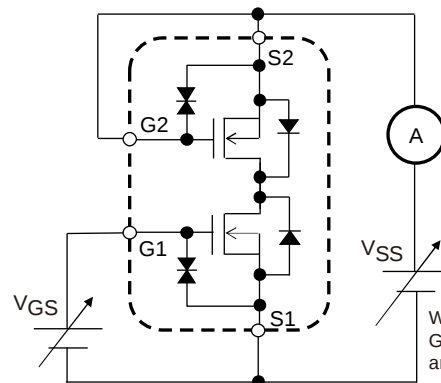


When FET1 is measured, Gate and Source of FET2 are short-circuited.

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

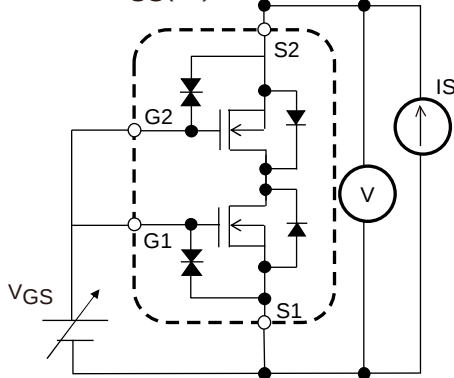


Test Circuit 4
 $|y_{fs}|$

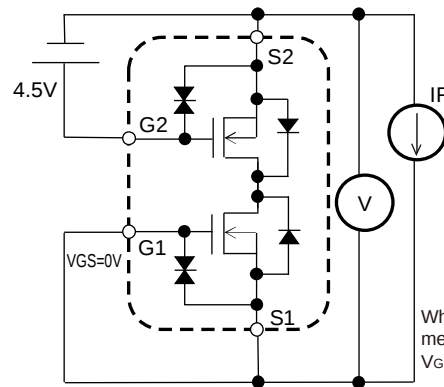


When FET1 is measured, Gate and Source of FET2 are short-circuited.

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

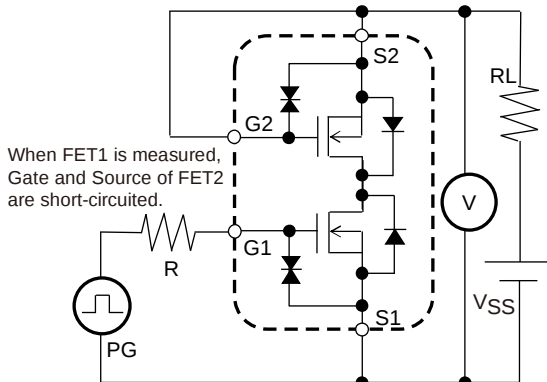


Test Circuit 6
 $V_F(S-S)$

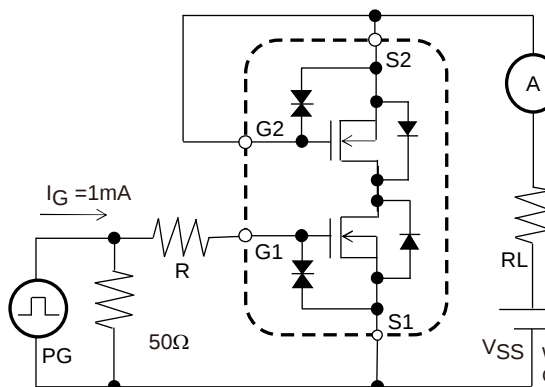


When FET1 is measured, +4.5V is added to V_{GS} of FET2.

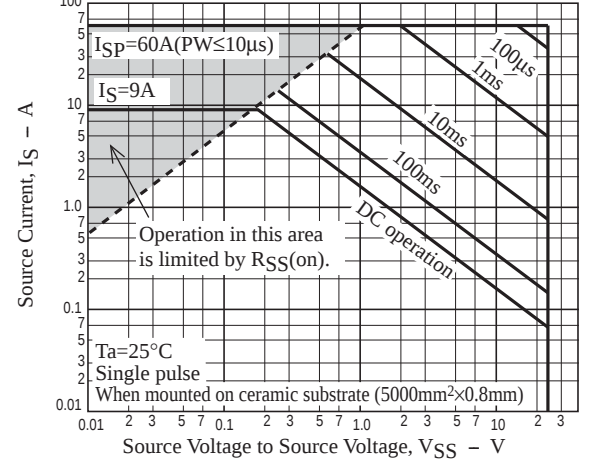
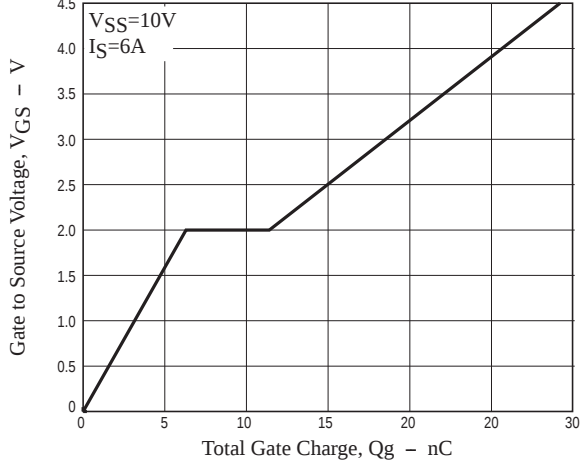
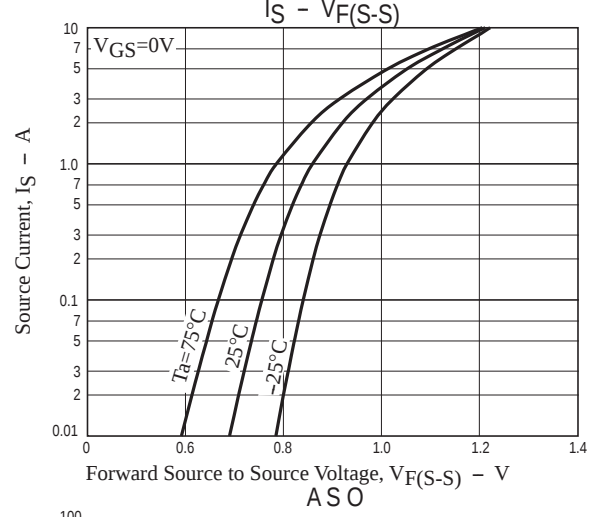
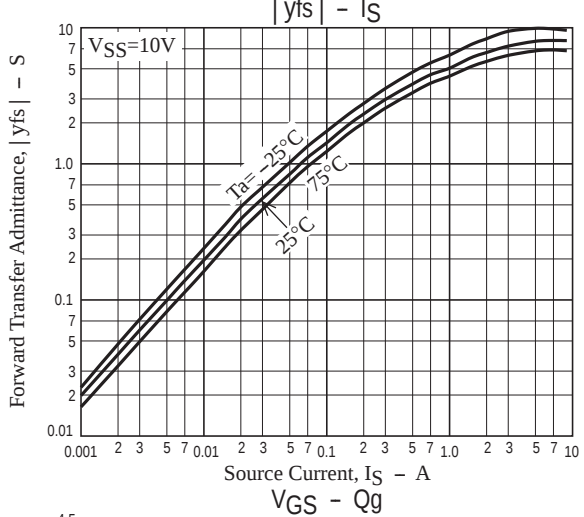
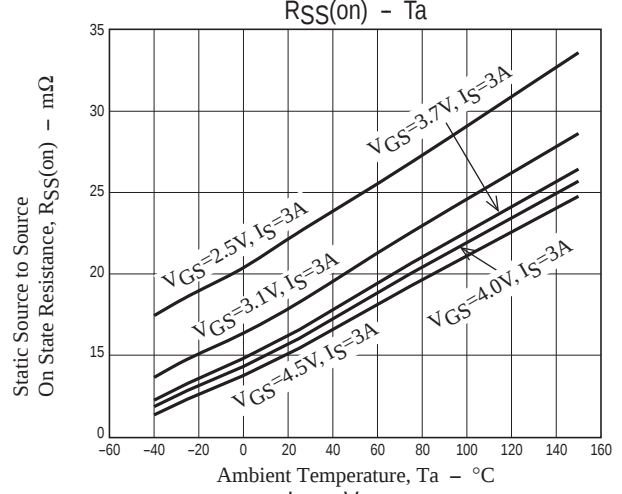
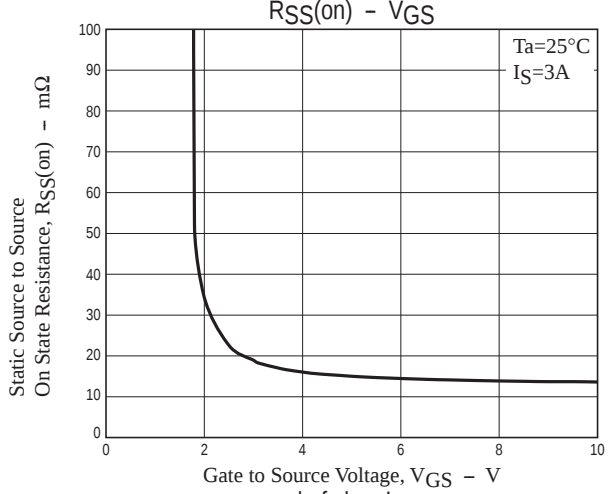
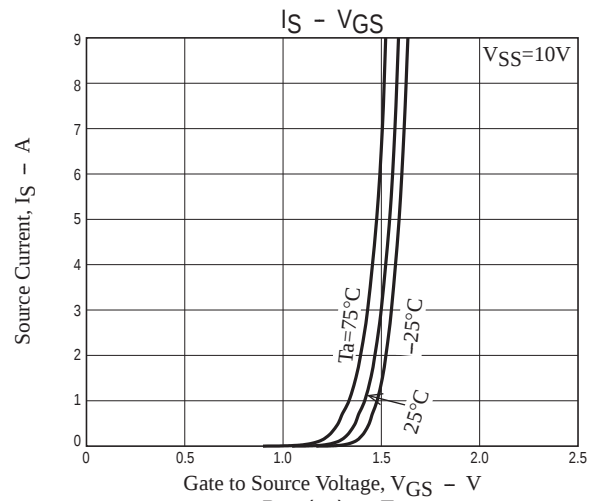
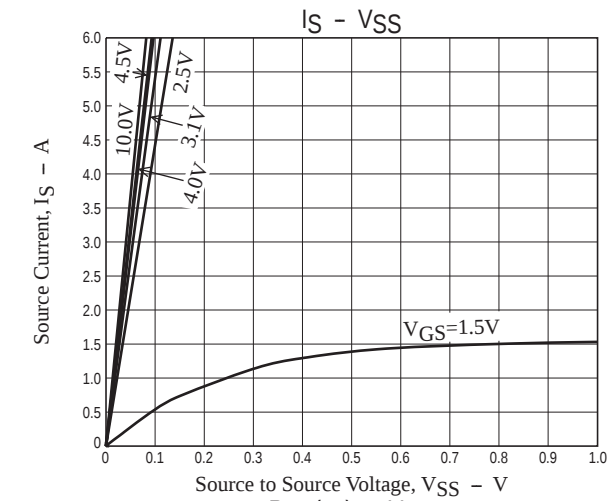
Test Circuit 7
 $t_d(on)$, t_r , $t_d(off)$, t_f

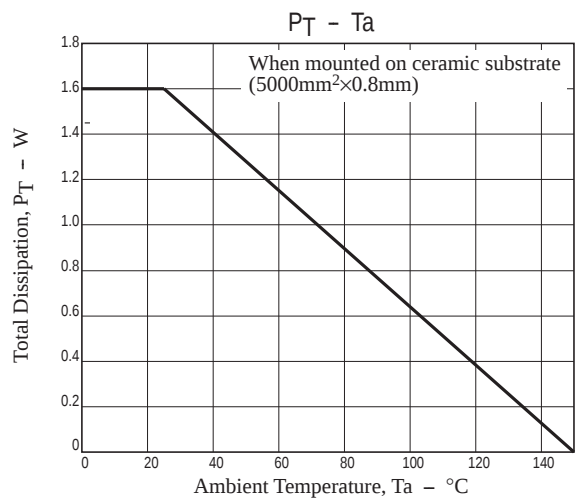


Test Circuit 8
 Q_g



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



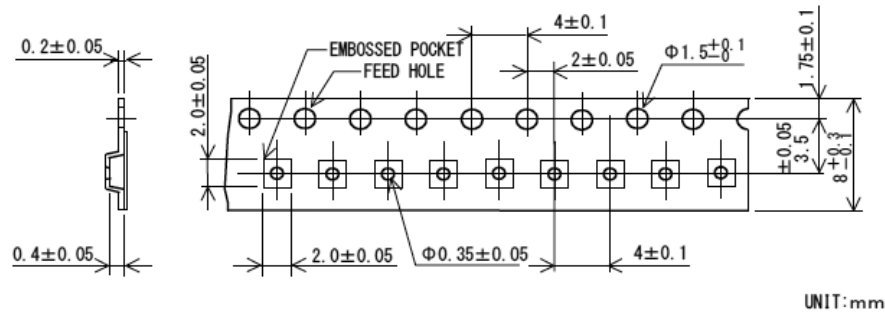


Taping Specification

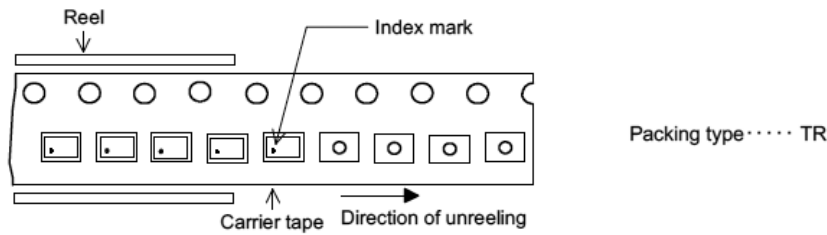
EFC4621R-TR

1.Taping Configuration

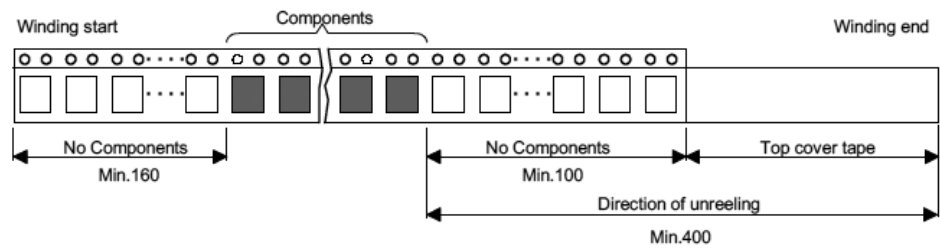
1- 1 .Carrier Tape Size (unit:mm)



1- 2 .Device Placement Direction



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

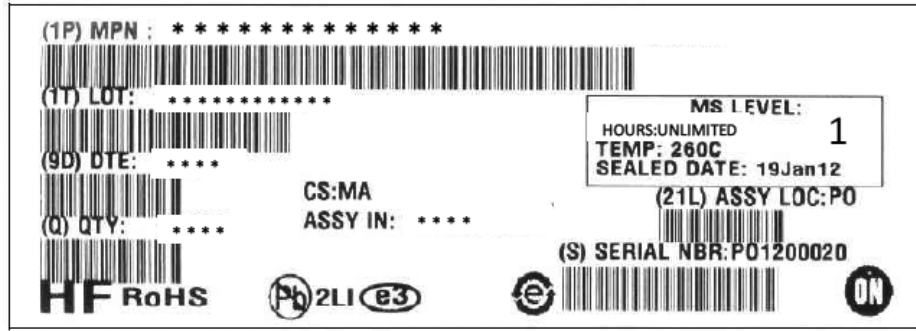


EFC4621R

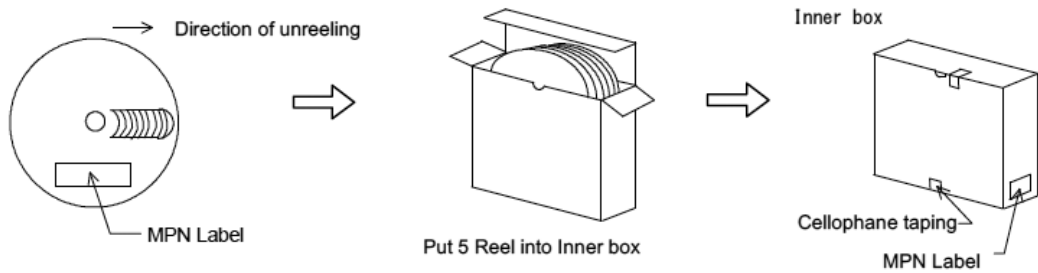
Packing Format

Carrier Tape code	Package code	Maximum Number of devices contained. (pcs.)			Packing Format	
		Reel	Inner box		Inner box BOX(C-1)	
2020X04	EFCP1818-4CE-022	5,000	25,000		5reels contained. Dimensions:mm 183×72×185	

MPN Label



Packing Method



Note on usage : Since the EFC4621R is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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