

Absolute maximum ratings

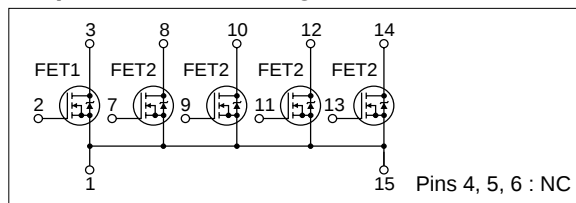
(T_a=25°C)

Symbol	Ratings		Unit
	FET 1	FET 2	
V _{DSS}	150		V
V _{GSS}	+20, -10		V
I _D	±7		A
I _D (pulse)*1	±15		A
E _{AS} *2	100		mJ
P _T	5 (T _a =25°C, with all circuits operating, without heatsink)		W
	47 (T _c =25°C, with all circuits operating, with infinite heatsink)		W
θ _{j-a}	25 (Junction-Air, T _a =25°C, with all circuits operating)		°C/W
θ _{j-c}	2.66 (Junction-Case, T _c =25°C, with all circuits operating)		°C/W
V _{iso}	1000 (Between fin and lead pin, AC)		V _{rms}
T _{ch}	150		°C
T _{stg}	-40 to +150		°C

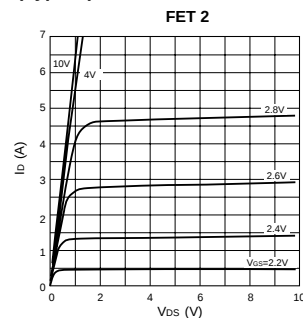
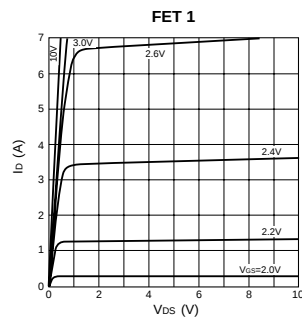
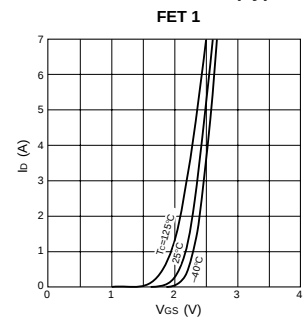
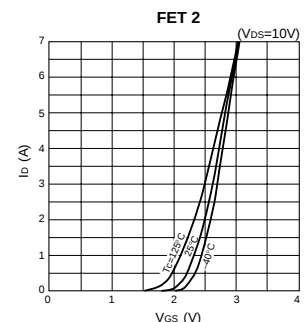
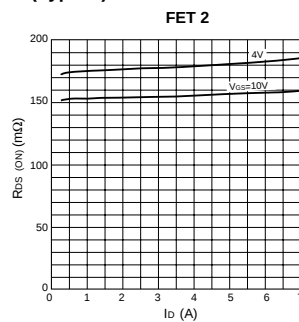
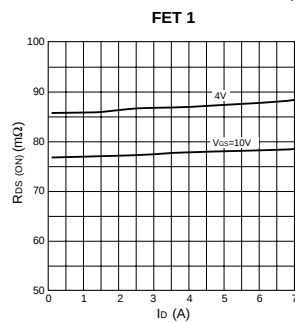
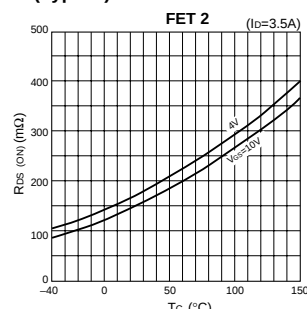
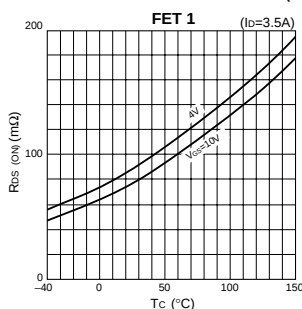
*1 : PW≤100μs, duty≤1%

*2 : V_{DD}=25V, L=3.4mH, I_D=7A, unclamped, R_G=50Ω, see Fig. E on page 15.

■Equivalent circuit diagram



Characteristic curves

I_D-V_{DS} Characteristics (Typical)I_D-V_{GS} Characteristics (Typical)R_{DS(ON)}-I_D Characteristics (Typical)R_{DS(ON)}-T_C Characteristics (Typical)

Electrical characteristics

(Ta=25°C)

Symbol	FET 1					FET 2				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
V _{(BR)DSS}	150			V	I _D =100μA, V _{GS} =0V	150			V	I _D =100μA, V _{GS} =0V
I _{GSS}			±100	nA	V _{GS} =20V, -10V			±100	nA	V _{GS} =20V, -10V
I _{DSS}			100	μA	V _{DS} =150V, V _{GS} =0V			100	μA	V _{DS} =150V, V _{GS} =0V
V _{TH}	1.0		2.0	V	V _{DS} =10V, I _D =250μA	1.0		2.0	V	V _{DS} =10V, I _D =250μA
Re _(yfs)	7	12		S	V _{DS} =10V, I _D =3.5A	4	9		S	V _{DS} =10V, I _D =3.5A
R _{DS(ON)}		80	105	mΩ	V _{GS} =10V, I _D =3.5A		150	200	mΩ	V _{GS} =10V, I _D =3.5A
		85	115	mΩ	V _{GS} =4V, I _D =3.5A		170	230	mΩ	V _{GS} =4V, I _D =3.5A
C _{iss}		1600		pF	V _{DS} =10V,		870		pF	V _{DS} =10V
C _{oss}		380		pF	f=1.0MHz,		320		pF	f=1.0MHz
C _{rss}		90		pF	V _{GS} =0V		210		pF	V _{GS} =0V
t _{d (on)}		35		ns	I _D =3.5A,		25		ns	I _D =3.5A
t _r		70		ns	V _{DD} ÷70V,		55		ns	V _{DD} ÷70V
t _{d (off)}		125		ns	R _L =20Ω,		80		ns	R _L =20Ω
t _f		90		ns	V _{GS} =5V, see Fig.3 on page 16.		50		ns	V _{GS} =5V, see Fig.3 on page 16.
V _{SD}		1.0	1.5	V	I _{SD} =7A, V _{GS} =0V		1.0	1.5	V	I _{SD} =7A, V _{GS} =0V
t _{rr}		320		ns	I _F =±100mA		500		ns	I _F =±100mA

Characteristic curves

