

Absolute maximum ratings

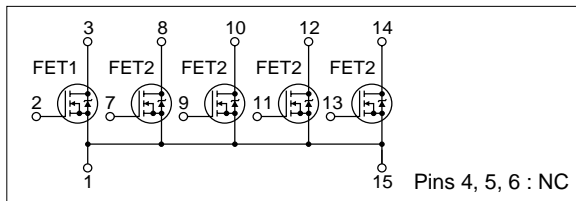
($T_a=25^\circ\text{C}$)

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 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)		W
	47 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)		W
θ_{j-a}	25 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)		$^\circ\text{C}/\text{W}$
θ_{j-c}	2.66 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating)		$^\circ\text{C}/\text{W}$
V_{iso}	1000 (Between fin and lead pin, AC)		Vrms
T_{ch}	150		$^\circ\text{C}$
T_{stg}	-40 to +150		$^\circ\text{C}$

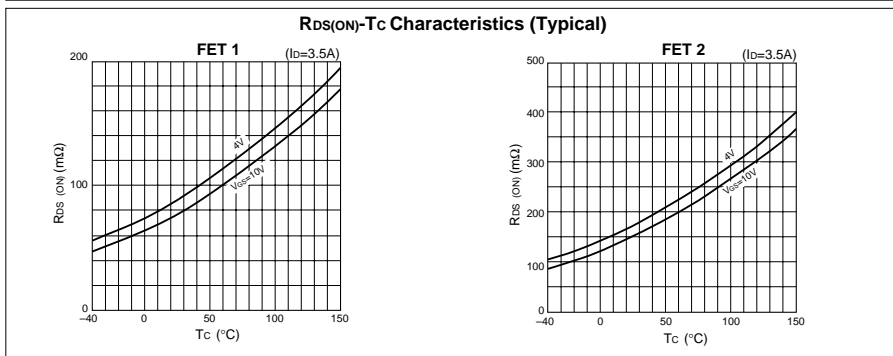
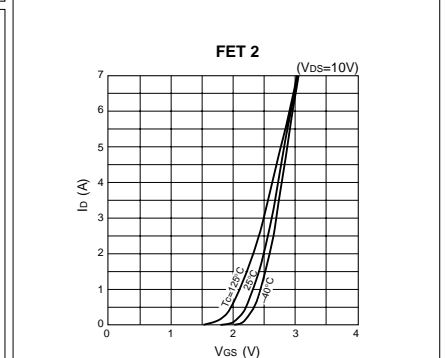
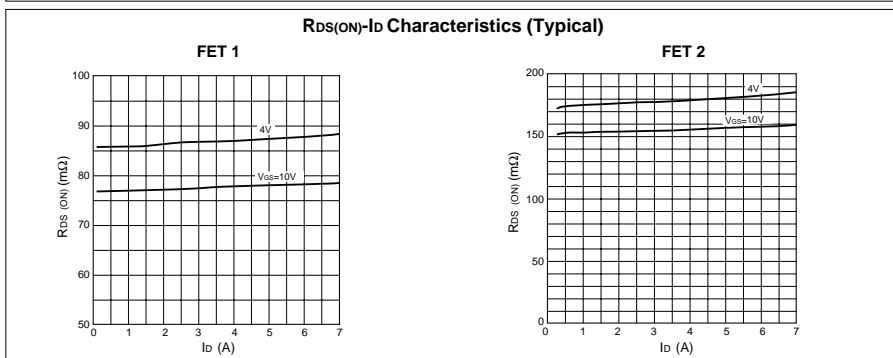
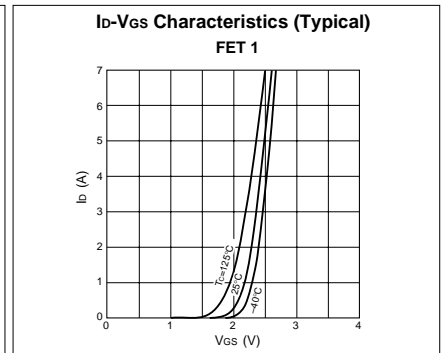
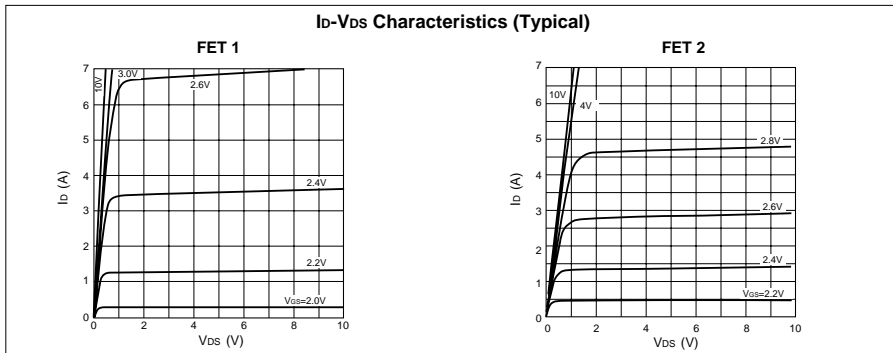
*1 : $PW \leq 100\mu\text{s}$, duty $\leq 1\%$

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

Equivalent circuit diagram



Characteristic curves



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	Id=100μA, VGS=0V	150			V	Id=100μA, VGS=0V
IGSS			±100	nA	VGS=20V, -10V			±100	nA	VGS=20V, -10V
IDSS			100	μA	VDS=150V, VGS=0V			100	μA	VDS=150V, VGS=0V
VTH	1.0		2.0	V	VDS=10V, Id=250μA	1.0		2.0	V	VDS=10V, Id=250μA
Re(yfs)	7	12		S	VDS=10V, Id=3.5A	4	9		S	VDS=10V, Id=3.5A
RDS(ON)		80	105	mΩ	VGS=10V, Id=3.5A		150	200	mΩ	VGS=10V, Id=3.5A
		85	115	mΩ	VGS=4V, Id=3.5A		170	230	mΩ	VGS=4V, Id=3.5A
Ciss		1600		pF	VDS=10V, f=1.0MHz,		870		pF	VDS=10V, f=1.0MHz
Coss		380		pF	VGS=0V		320		pF	VGS=0V
Crss		90		pF	VGS=0V		210		pF	VGS=0V
td(on)		35		ns	Id=3.5A, VDD=70V, RL=20Ω,		25		ns	Id=3.5A, VDD=70V, RL=20Ω
tr		70		ns	VGS=5V, see Fig.3 on page 16.		55		ns	VGS=5V, see Fig.3 on page 16.
td(off)		125		ns			80		ns	
tf		90		ns			50		ns	
VSD		1.0	1.5	V	ISD=7A, VGS=0V		1.0	1.5	V	ISD=7A, VGS=0V
ttr		320		ns	IF=±100mA		500		ns	IF=±100mA

Characteristic curves

