N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	60V
I_D	20A
$R_{DS(ON)}$(at V_{GS}= 10V)	< 43mohm
$R_{DS(ON)}$(at V_{GS}= 4.5V)	< 47mohm

100% EAS Tested
100% θ V_{DS} Tested

General Description

MV MOSFET technology
Excellent package for heat dissipation
High density cell design for low $R_{DS(ON)}$
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

DC-DC Converters
Power management functions
Backlighting

Absolute Maximum Ratings (T_A=25℃unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	¤ 20	V
Drain Current	T_C=25℃	I_D	20	A
	T_C=100℃		12	
Pulsed Drain Current [A]		I_{DM}	60	A

Total Power Dissipa 370/F5 8C998

Electrical Characteristics (T_J=25℃ unless otherwise noted)

Parameter	Symbol	Conditions		Min	Typ	Max	Units
Static Parameter							
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}= 0V, I_D=250		60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V,V_{GS}=0V	T_J=25℃			1	
			T_J=150℃			100	
Gate-Body Leakage Current	I_{GSS}	V_{GS}= ¤20V, V_{DS}=0V				¤100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}= V_{GS}, I_D=250		1.0	1.5	2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}= 10V, I_D=20A			29	43	m
		V_{GS}= 4.5V, I_D=10A			31	47	
Diode Forward Voltage	V_{SD}	I_S=10A,V_{GS}=0V					

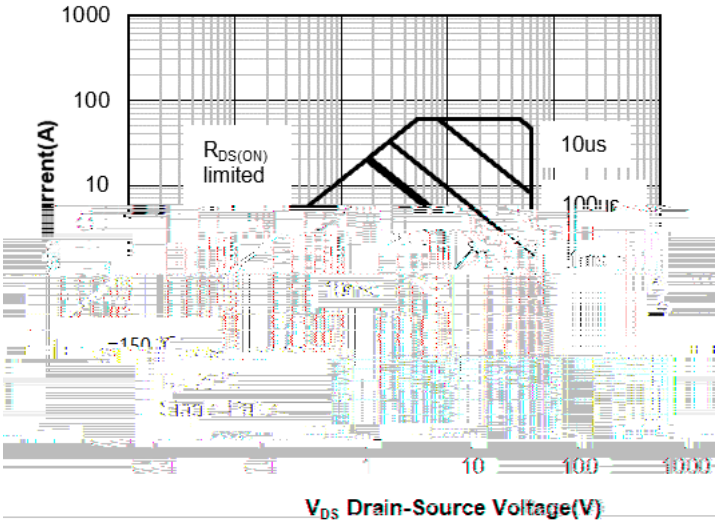

Figure 7. Safe Operation Area

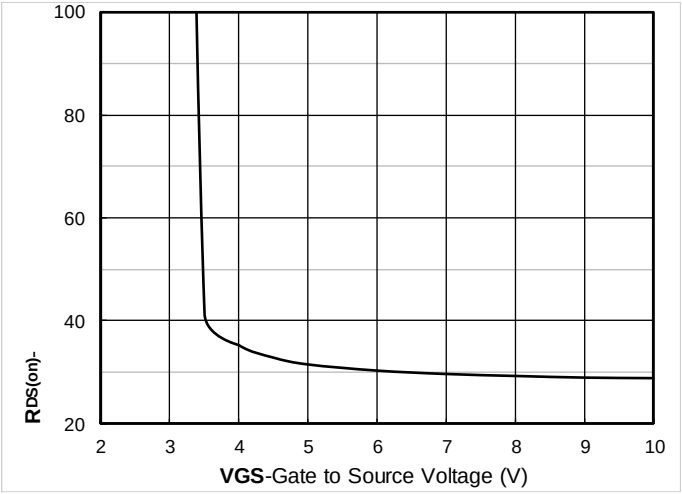

Figure 9. On-