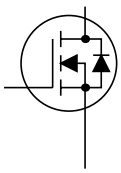
Part Number: 1.IRFP4227PBF
Sample ID: 1A-1
Description: sample
Operator: YM
Measurement Instrument: B1506AH51_MY59200135



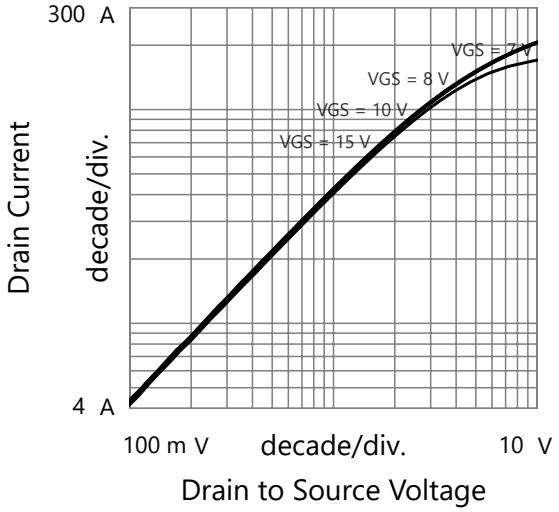
Maximum Ratings

Symbol	*Parameter*	*Test Conditions*	*Value*	*Unit*	*Note*
VDSS	Drain to Source Voltage	Tj=-40 °C to 175 °C	200	V	
VGSS	Gate to Source Voltage	Conitnuous	-30 to 30	V	
IDM	Pulsed Drain Current	Tc=25 °C	260	A	
ISM	Pulsed Body Diode Current	Tc=25 °C	260	A	

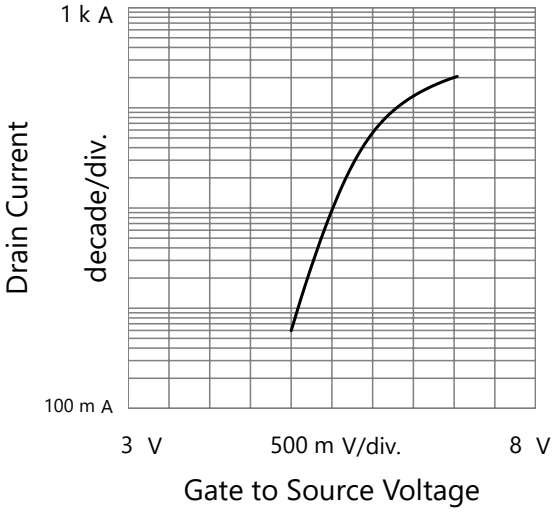
Characteristics Parameters

Symbol	*Parameter*	*Test Conditions*	*Min.*	*Act.*	*Max.*	*Unit*	*Note*
BVDSS	Drain to Source Breakdown Voltage	VGS=0 V, ID=250 µA	200	221		V	
IDSS	Drain Leakage Current	VDS=200 V, VGS=0 V		4.99 n	20 µ	A	
IGSS	Gate Leakage Current	VGS=20 V, VDS=0 V		18.1 p	100 n	A	
IGSS(-)	Gate Leakage Current (-)	VGS=-20 V, VDS=0 V	-100 n	-27.9 p		A	
VGS(th)	Gate to Source Threshold Voltage (VDS=VGS)	ID=250 µA	3	3.98	5	V	
RDS(on)	Drain to Source On Resistance	VGS=10 V, ID=46 A, PulseWidth=200 µs		23.7 m	25 m	ohm	Typ. 21 m ohm
VSD	Body Diode Forward Voltage	VGS=0 V, IS=46 A, PulseWidth=200 µs		850 m	1.3	V	
Rg	Gate Resistance	VGS=0 V, f=1 MHz		NaN		ohm	Not specified
Ciss	Input Capacitance	VGS=0 V, VDS=25 V, f=100 kHz		4.69 n		F	Typ. 4600 pF
Coss	Output Capacitance	VGS=0 V, VDS=25 V, f=100 kHz		463 p		F	Typ. 460 pF
Crss	Reverse Transfer Capacitance	VGS=0 V, VDS=25 V, f=100 kHz		141 p		F	Typ. 91 pF
Qg	Total Gate Charge	Vgs(on)=10 V, Vgs(off)=0 V, Vds=100 V, Id=46 A		82.1 n	98 n	C	Typ. 70 nC
Qgs	Gate to Source Charge	Vgs(on)=10 V, Vgs(off)=0 V, Vds=100 V, Id=46 A		NaN		C	Not specified
Qgd	Gate to Drain Charge	Vgs(on)=10 V, Vgs(off)=0 V, Vds=100 V, Id=46 A		28.5 n		C	Typ. 23 nC

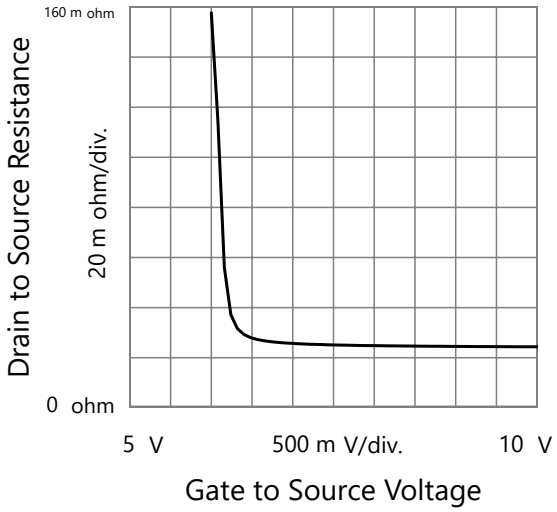
Output Characteristics



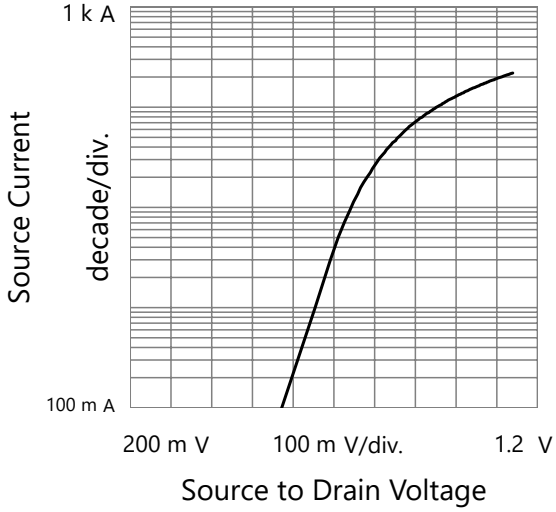
Transfer Characteristics(Vds:25V @200A)



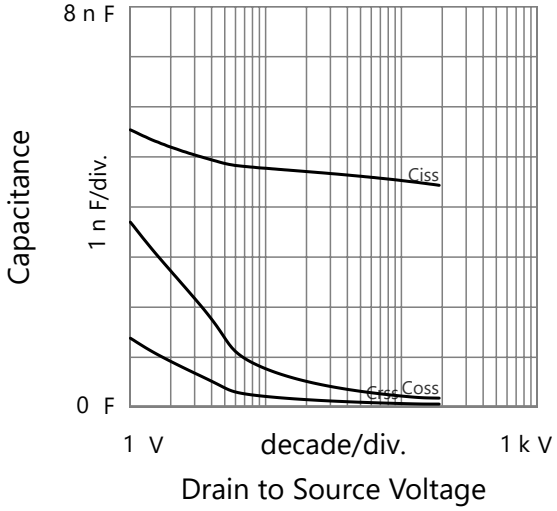
Drain to Source Resistance vs. Gate to Source Voltage



Body Diode Forward Characteristics



Capacitances



Gate Charge (Vds:160 V, Id:46 A)