

Electrical Characteristics

DC Characteristics

Ta=25°C

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Drain Cut-off Current	I _{dss}	V _{ds} = - 20V , V _{gs} = 0V			- 10	μA
Gate-Source Leakage Current	I _{gss}	V _{gs} = ± 12V , V _{ds} = 0V			± 1	μA
Gate-Source Cut-off Voltage	V _{gs} (off)	I _d = -1mA , V _{ds} = - 10V	- 0.5		- 1.2	V
Drain-Source On-state Resistance (note)	R _{ds} (on)	I _d = - 3A , V _{gs} = - 4.5V		0.06	0.075	Ω
		I _d = - 3A , V _{gs} = - 2.5V		0.092	0.115	Ω
Forward Transfer Admittance (note)	Y _{fs}	I _d = - 3A , V _{ds} = - 10V		8		S
Body Drain Diode Forward Voltage	V _f	I _f = - 5A , V _{gs} = 0V		- 0.85	- 1.1	V

(note) : Effective during pulse test.

Dynamic Characteristics

Ta=25°C

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Capacitance	C _{iss}	V _{ds} = - 10V , V _{gs} = 0V f = 1 MHz		770		pF
Output Capacitance	C _{oss}			440		pF
Feedback Capacitance	C _{rss}			180		pF

Switching Characteristics

Ta=25°C

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS	
Turn-on Delay Time	t _d (on)	V _{gs} = - 5V , I _d = - 3A V _{dd} = - 10V		10		ns	
Rise Time	t _r			25		ns	
Turn-off Delay Time	t _d (off)				45		ns
Fall Time	t _f				40		ns

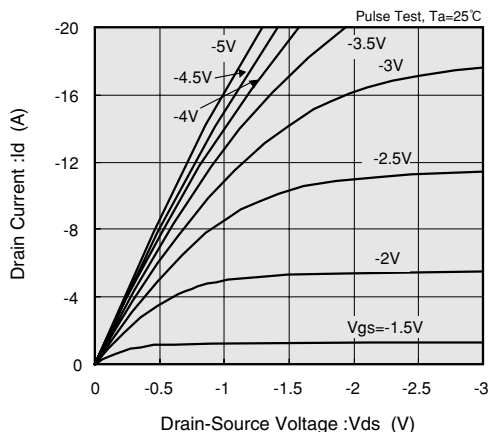
11

Thermal Characteristics

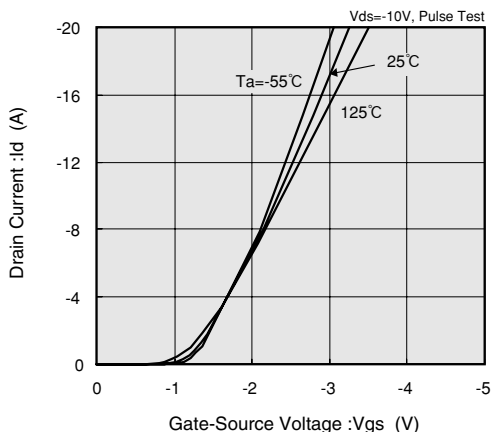
PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Thermal Resistance (channel-ambience)	R _{th} (ch-a)	Implement on a glass epoxy resin PCB		50		°C / W

Typical Performance Characteristics

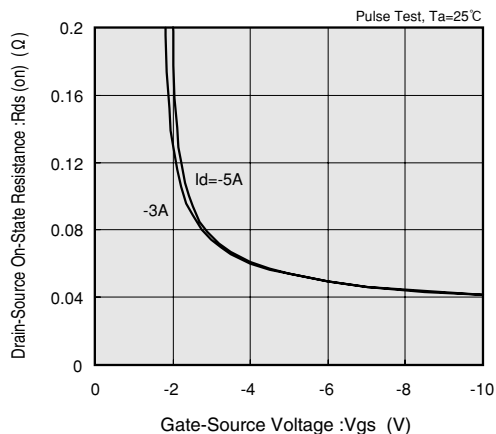
DRAIN CURRENT vs. DRAIN-SOURCE VOLTAGE



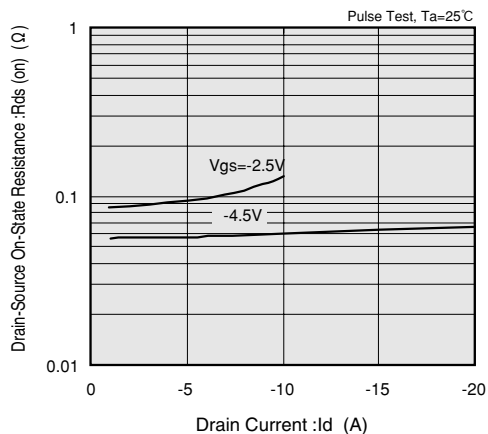
DRAIN CURRENT vs. GATE-SOURCE VOLTAGE



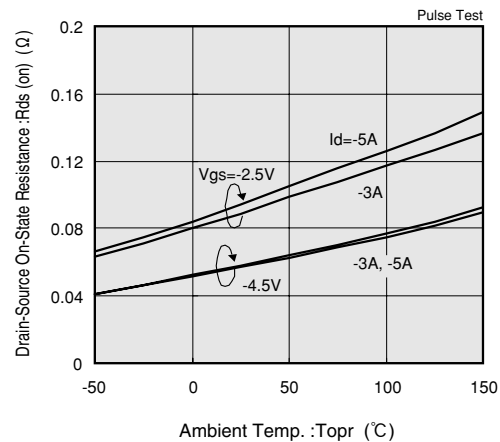
DRAIN-SOURCE ON-STATE RESISTANCE vs. GATE-SOURCE VOLTAGE



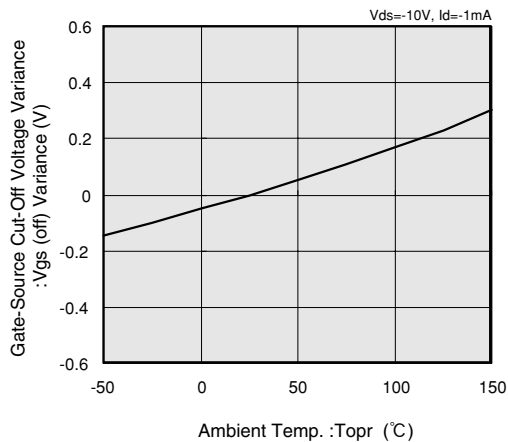
DRAIN-SOURCE ON-STATE RESISTANCE vs. DRAIN CURRENT



DRAIN-SOURCE ON-STATE RESISTANCE vs. AMBIENT TEMPERATURE

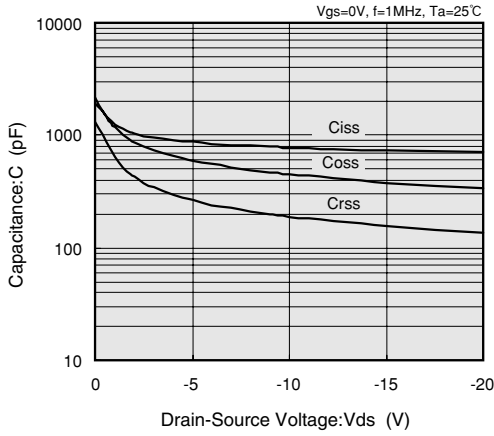


GATE-SOURCE CUT-OFF VOLTAGE VARIANCE vs. AMBIENT TEMPERATURE

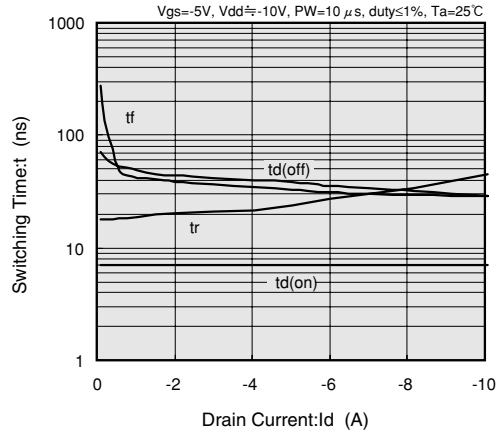


11

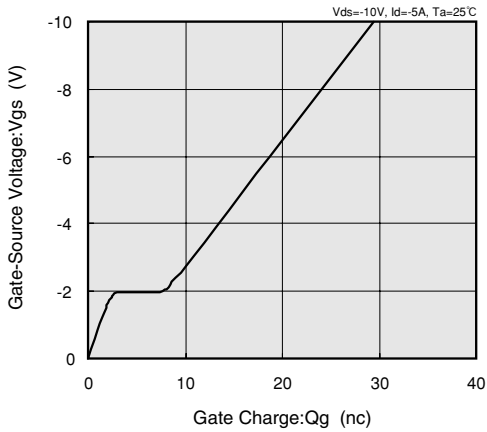
CAPACITANCE vs. DRAIN-SOURCE VOLTAGE



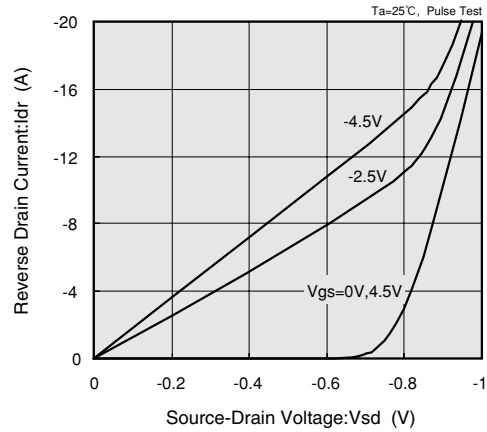
SWITCHING TIME vs. DRAIN CURRENT



GATE-SOURCE VOLTAGE vs. GATE CHARGE



REVERSE DRAIN CURRENT vs. SOURCE-DRAIN VOLTAGE



STANDARDIZED TRANSITION THERMAL RESISTANCE vs. PULSE WIDTH

