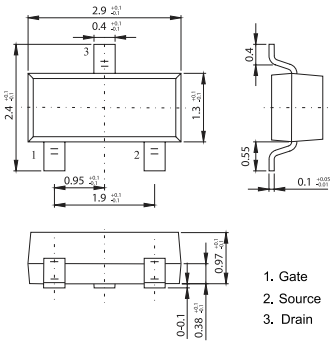
P Channel MOSFET

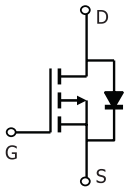
multicomp PRO

RoHS Compliant



Features

- $V_{DS\ (V)}$ = -50V
- I_D = -130mA
- $R_{DS(ON)}$ < 10Ω (V_{GS} = -5V)



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	-130	mA
Pulsed Drain Current (tp≤10μs)	I_{DM}	-520	
Power Dissipation	P_D	225	mW
Thermal Resistance.Junction- to-Ambient	R_{thJA}	556	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 to 150	

Electrical Characteristics Ta = 25°C

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=250μA, V_{GS}=0V	-50			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-50, V_{GS}=0V			-0.1	uA
		V_{DS}=-50V, V_{GS}=0V			-15	
Gate-Body Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±10	uA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} , I_D=1mA	-0.8		-2	V
Static Drain-Source On-Resistance	$R_{DS(On)}$	V_{GS}=-5V, I_D=-100mA			10	Ω
Forward Transconductance	g_{FS}	V_{DS}=-25V, I_D=-100mA, f=1.0KHz	50			mS

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	V_{GS}=0V, V_{DS}=-5V, f=1MHz		30		pF
Output Capacitance	C_{oss}			10		
Reverse Transfer Capacitance	C_{RSS}			5		
Turn-On DelayTime	$t_{d(on)}$	V_{DD}=-15V, I_D=-0.25A, R_L=50Ω[1)]		2.5		ns
Turn-On Rise Time	t_r			1		
Turn-Off DelayTime	$t_{d(off)}$			16		
Turn-Off Fall Time	t_f			8		
Gate Charge	Q_T			6000		PC
Maximum Body-Diode Continuous Current	I_S	I_F= 0.17A, d_I/d_t= 100A/ s			-0.13	A
Maximum Body-Diode Pulsed Current	I_{SM}				-0.52	
Diode Forward Voltage	V_{SD}	I_{SD}=-30mA, V_{GS}=0 V		-2.5		V

1) Switching Time is Essentially Independent of Operating Temperature.

Typical Characterisitics

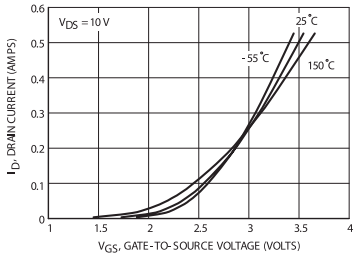


FIG1. Transfer Characteristics

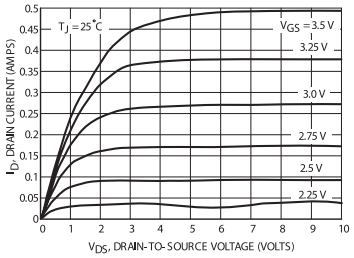


FIG2. On-Region Characteristics

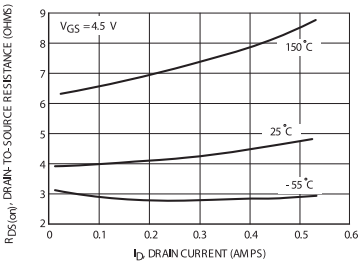


FIG3. On-Resistance versus Drain Current

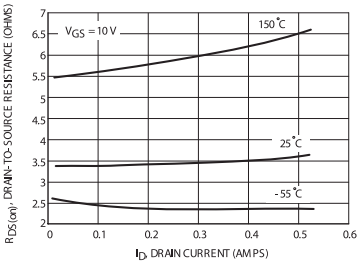


FIG4. On-Resistance versus Drain Current

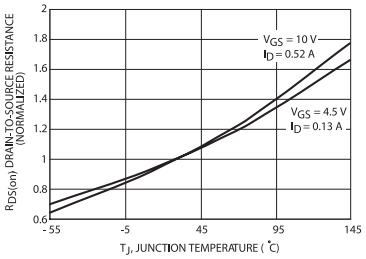


FIG5. On-Resistance Variation with Temperature

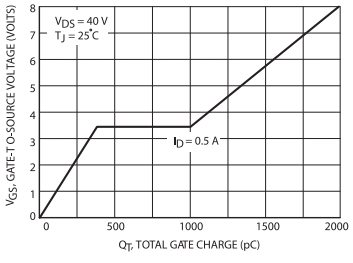


FIG6. Gate Charge

Typical Characterisitics

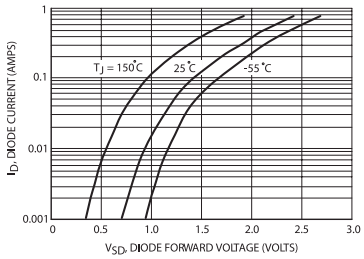


FIG7. Body Diode Forward Voltage

Part Number Table

Description	Part Number
P Channel Single MOSFET, SOT23, -50V, 130mA	BSS84

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