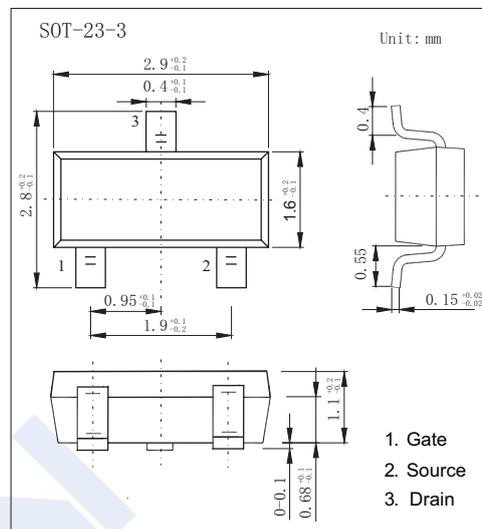
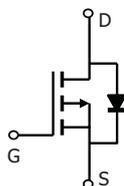


P-Channel MOSFET

BSS84

■ Features

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

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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 ($t_p \leq 10\mu\text{s}$)	I_{DM}	-520	
Power Dissipation	P_D	225	mW
Thermal Resistance.Junction- to-Ambient	R_{thJA}	556	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

P-Channel MOSFET

BSS84

■ Electrical Characteristics Ta = 25°C Unless otherwise noted

Parameter	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} =-25V, V _{GS} =0V			-0.1	μA
		V _{DS} =-50V, V _{GS} =0V			-15	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-1.0mA	-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
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				-0.13	A
Maximum Body-Diode Pulsed Current	I _{SM}				-0.52	
Diode Forward Voltage	V _{SD}	I _{SD} =-130mA, V _{GS} =0V		-2.5		V

1) Switching Time is Essentially Independent of Operating Temperature.

■ Marking

Marking	PD
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P-Channel MOSFET

BSS84

■ Typical Characteristics

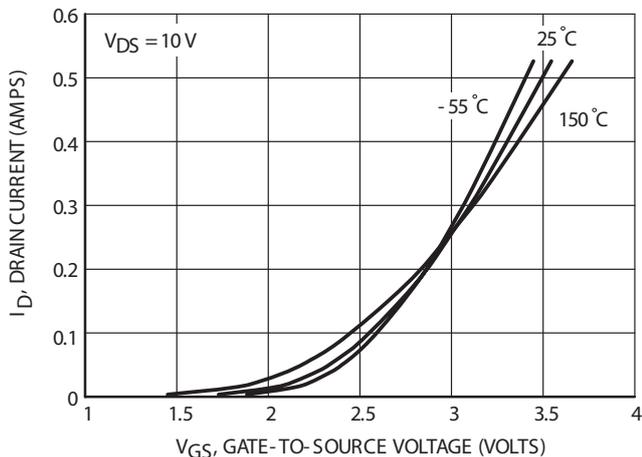


FIG1. Transfer Characteristics

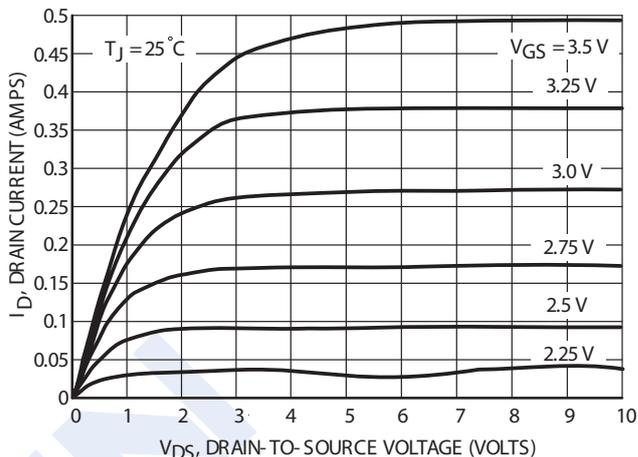


FIG2. On-Region Characteristics

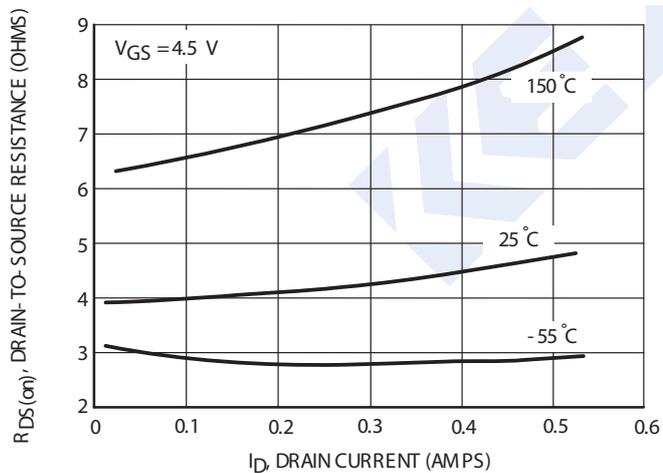


FIG3. On-Resistance versus Drain Current

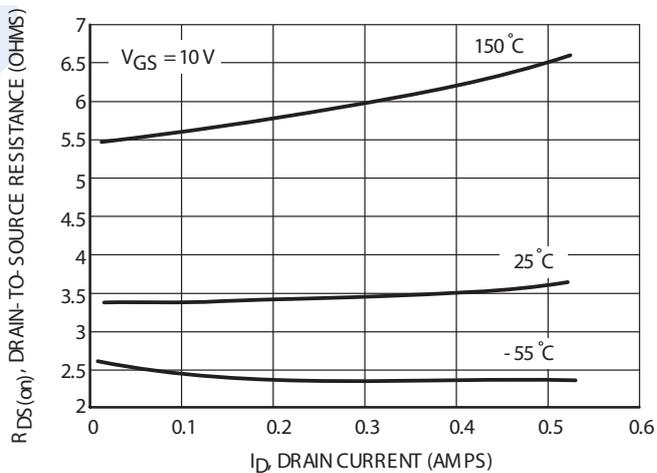


FIG4. On-Resistance versus Drain Current

P-Channel MOSFET

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■ Typical Characteristics

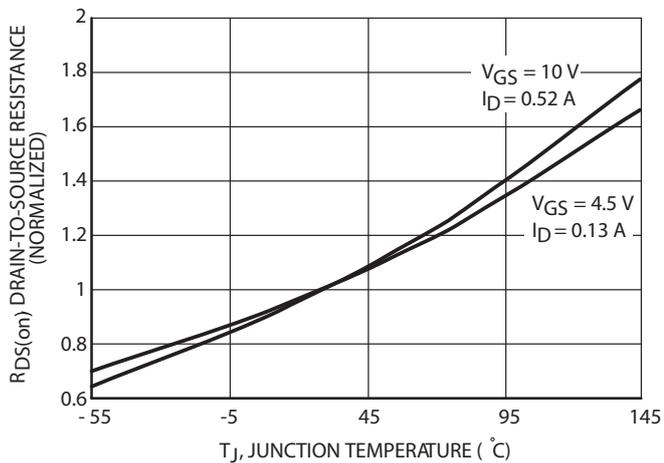


FIG5. On-Resistance Variation with Temperature

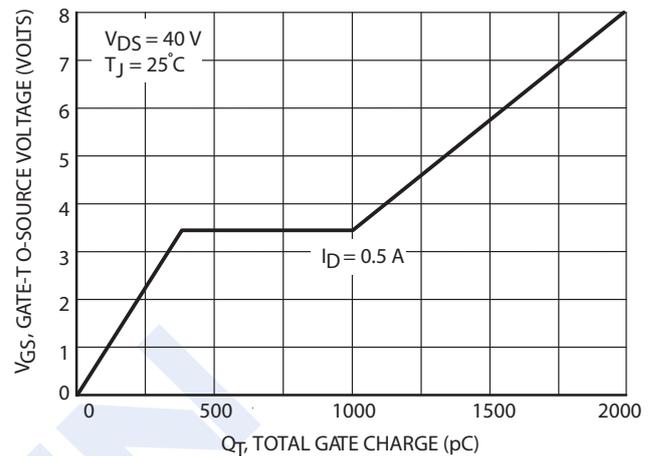


FIG6. Gate Charge

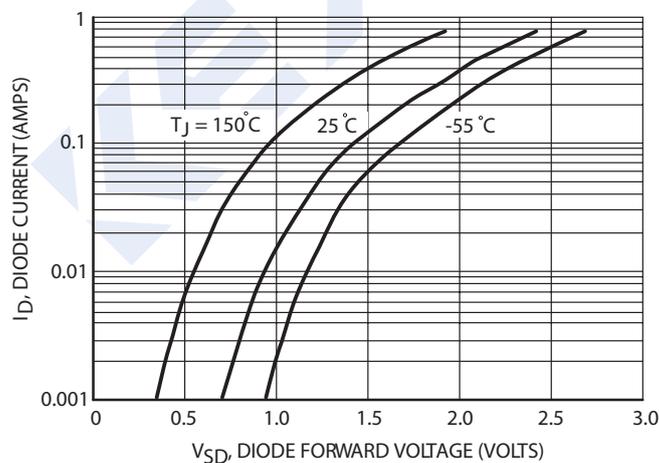


FIG7. Body Diode Forward Voltage