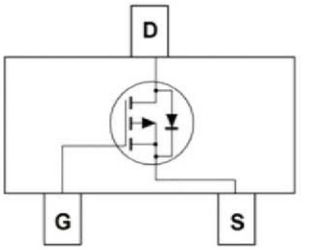
BSS84

P-Channel Enhancement Mode MOSFET

Feature

- -50V/-0.13A, $R_{DS(ON)}$ =10Ω (MAX) @V_{GS} = -5V, Ids=-0.1A
- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged
- SOT-23 for Surface Mount Package



SOT-23

Applications

- Power Management

  Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings

T_A=25℃ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	-0.13	A

Electrical Characteristics

T_A=25℃ Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=-250μA	-50	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=-50V, VGS=0V	-	-	-15	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=20V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-20V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=-1mA	-0.8	-	-2.5	V
Static Drain-sourceOn-Resistance	RDS(ON)	VGS =-5V, ID =-0.1A	-	5	10	Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=-0.13A			-2.5	V

DYNAMIC PARAMETERS						
Input Capacitance	Ciss	VGS=0V, VDS=-5V, f=1MHz		30		pF
Output Capacitance	Coss			10		pF
Reverse Transfer Capacitance	Crss			5		pF
SWITCHING PARAMETERS						
Turn-On Delay Time	$t_{D(on)}$	VGS=-10V, VDS=-15V, ID=-0.25A, RL=50Ω		2.5		ns
Turn-On Rise Time	t_r			1.0		ns
Turn-Off Delay Time	$t_{D(off)}$			16		ns
Turn-Off Fall Time	t_f			8		ns

Typical Characteristics

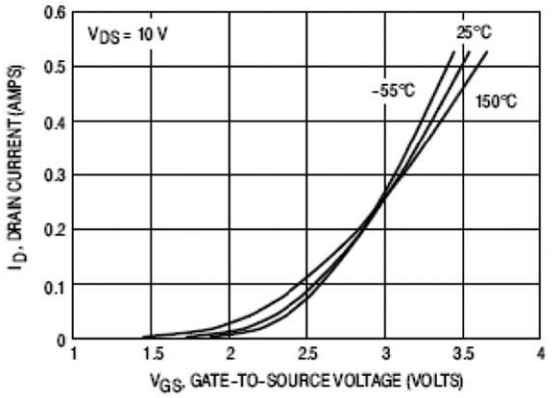


Figure 1. Transfer Characteristics

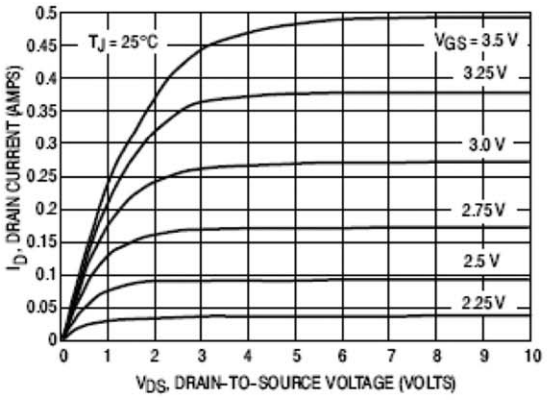


Figure 2. On–Region Characteristics

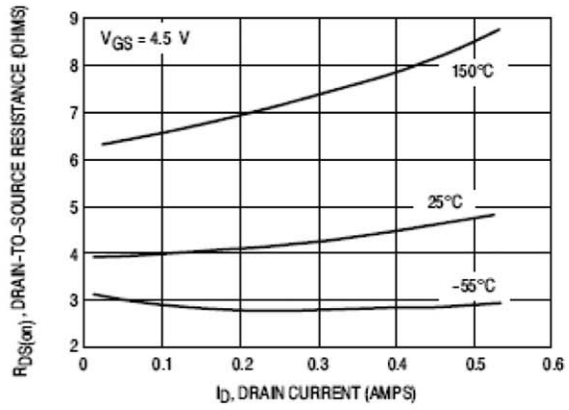


Figure 3. On–Resistance versus Drain Current

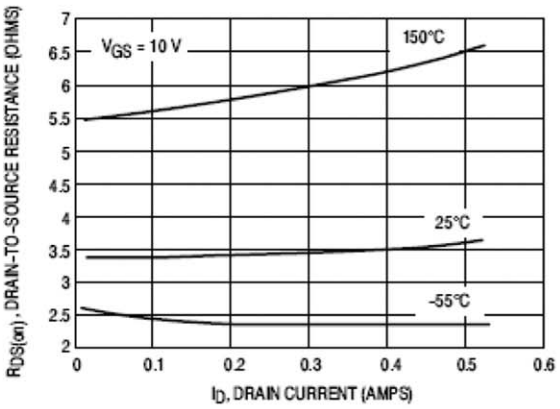


Figure 4. On–Resistance versus Drain Current

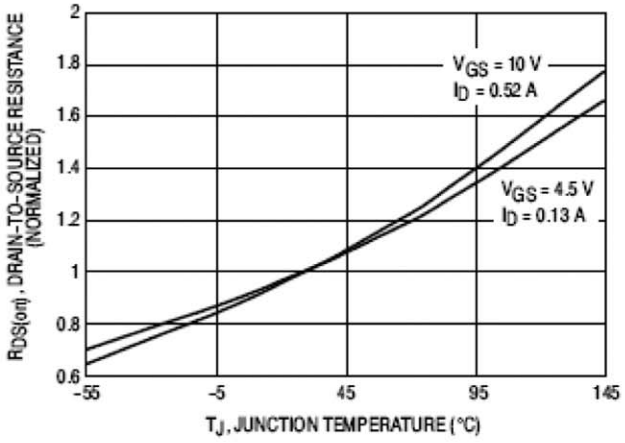


Figure 5. On–Resistance Variation with Temperature

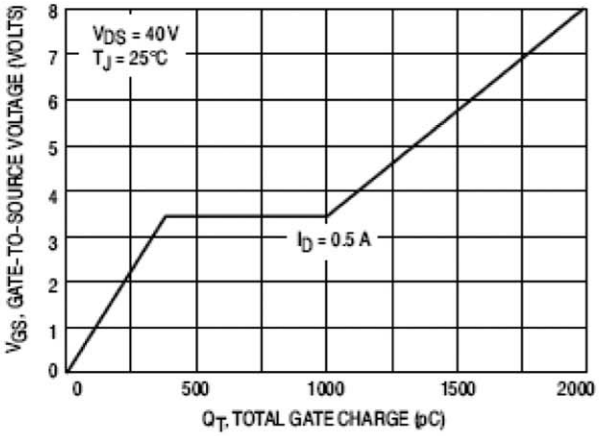


Figure 6. Gate Charge

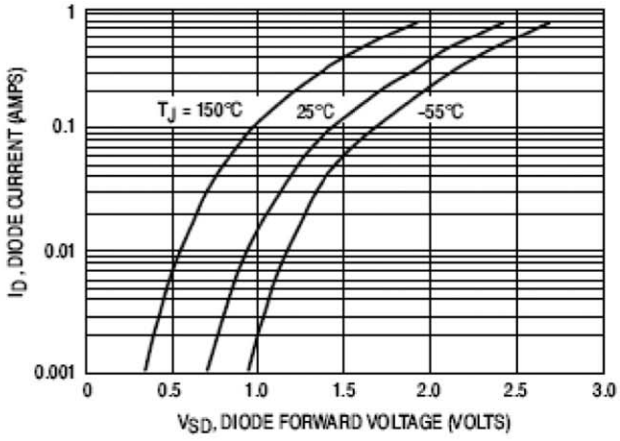
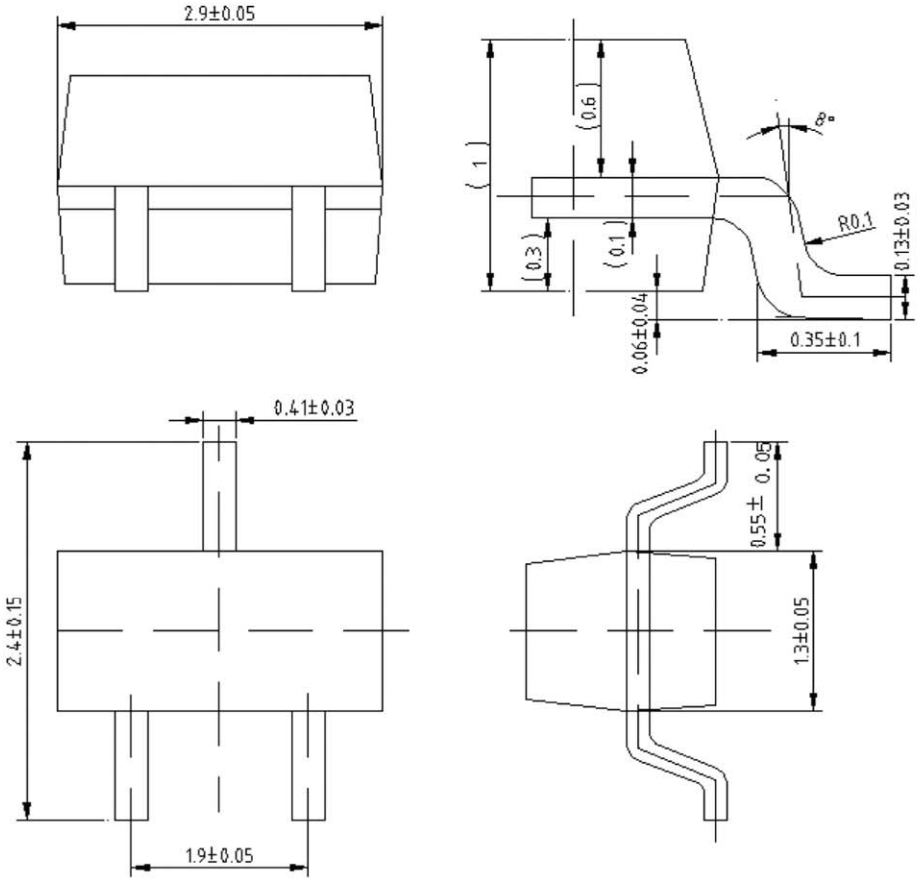


Figure 7. Body Diode Forward Voltage

SOT-23 Package Outline Dimensions (UNIT: mm)



SOT-23 Carrier Tape