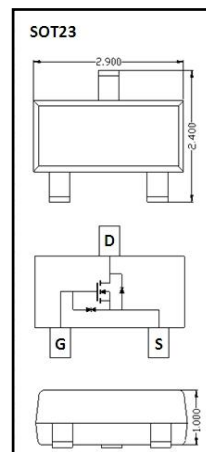
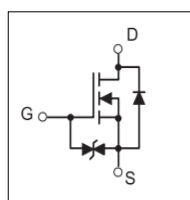


DATA SHEET

BSS123K

- ◇Epoxy Meets UL 94 V-0 Flammability Rating
- ◇High Density Cell Design For Low $R_{DS(on)}$
- ◇Voltage Controlled Small Signal SwitchInternal Structure
- ◇Rugged And Reliable
- ◇ESD Protected

Device Marking Code	
BSS123K	123K



MAXIMUM RATINGS ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Value	Units
V_{DS}	Drain-Source Voltage	100	V
V_{GS}	Gate-Source-Voltage	± 20	V
I_D	Drain Current- Continuous	0.17	A
P_d	Power Dissipation	0.35	W
T_J	Junction Temperature	-55 to 150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55 to 150	$^{\circ}\text{C}$
R_{thJA}	Thermal Resistancefrom Junction to Ambient	357	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_a = 25\text{ }^{\circ}\text{C}$)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu A$	100			V
$V_{GS(th)}$	Gate-Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu A$	1.5		2.5	V
I_{GSS}	Gate -Body Leakage Current	$V_{DS}=0V, V_{GS}=\pm 20V$			± 10	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=80V, V_{GS}=0V$			1	μA
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V, I_D=0.25A$ $V_{GS}=4.5V, I_D=0.2A$			6 9	Ω
V_{SD}	Diode Forward Voltage	$V_{GS}=0V, I_S=0.4A$			1.3	V

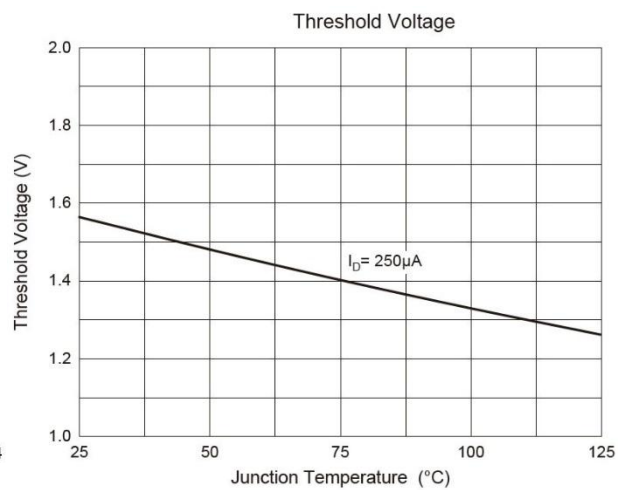
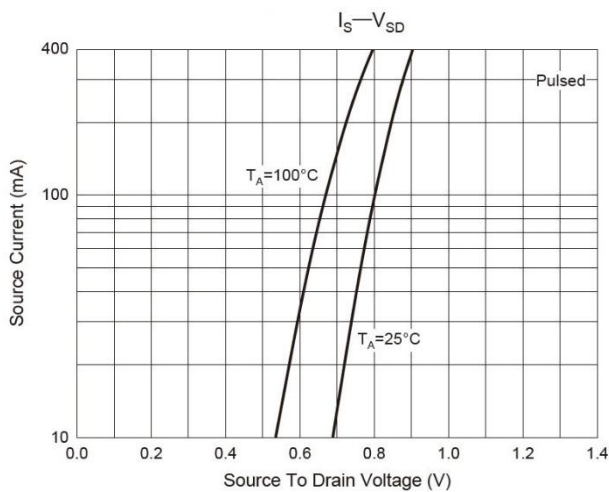
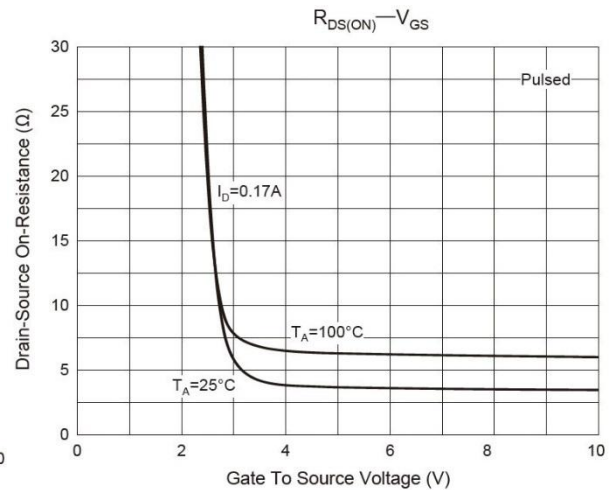
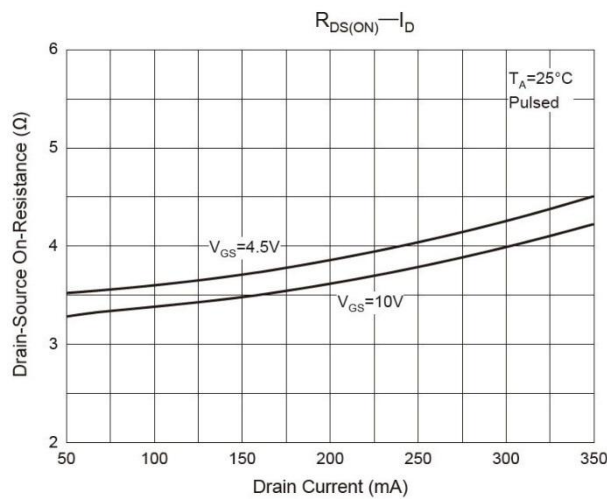
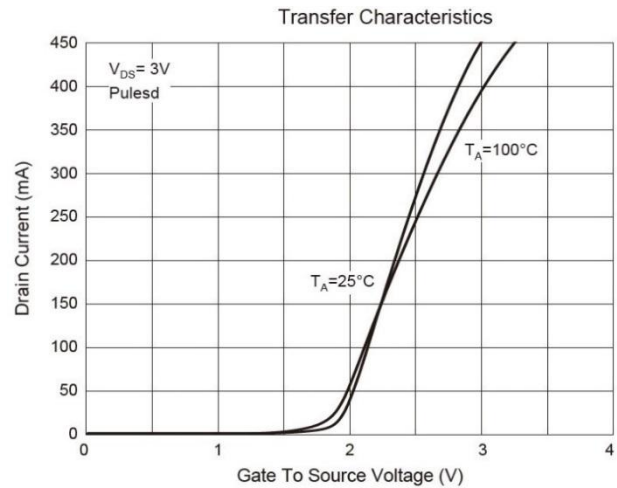
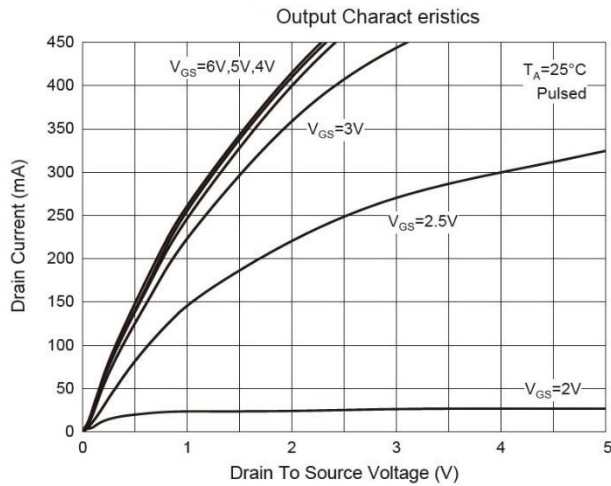
DYNAMIC CHARACTERISTICS

C_{iss}	Input Capacitance	$V_{DS}=25V, V_{GS}=0V, f=1MHz$		60		pF
C_{oss}	Output Capacitance			15		
C_{rss}	Reverse Transfer Capacitance			6		

SWITCHING CHARACTERISTICS

Q_g	Total Gate Charge	$V_{DS}=10V, V_{GS}=10V, I_D=0.22A$			2	nC
Q_{gs}	Gate-Source Charge				0.25	
Q_{gd}	Gate-Drain Charge				0.4	
$t_{d(on)}$	Turn-On Delay Time	$V_{DD}=30V, V_{GS}=10V, R_G=50\Omega, I_D=0.28A$			8	ns
t_r	Turn-On Rise Time				8	
$t_{d(off)}$	Turn-Off Delay Time				13	
t_f	Turn-Off Fall Time				16	

Typical Characteristics



ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BSS123K	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

