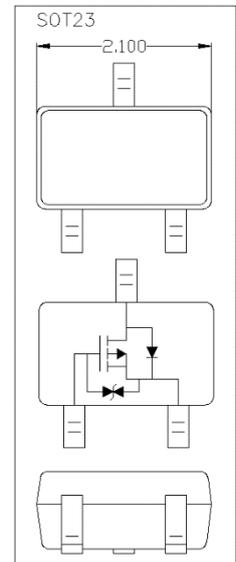
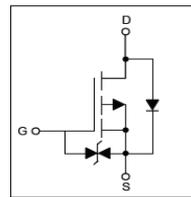


DATA SHEET

BSS84K

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

Device Marking Code	
BSS84K	B84K



MAXIMUM RATINGS (Ta = 25 °C)

Symbol	Parameter	Value	Units
V_{DS}	Drain-Source Voltage	-60	V
V_{GS}	Gate-Source-Voltage	± 20	V
I_D	Drain Current- Continuous	-0.13	A
I_{DM}	Pulsed Drain Current ^(Note1)	-0.52	A
P_d	Power Dissipation	225	mW
T_J	Junction Temperature	-55 to 150	°C
T_{STG}	Storage Temperature	-55 to 150	°C
R_{thjA}	Thermal Resistance from Junction to Ambient	556	°C/W

ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=-250\mu A$	-60			V
$V_{GS(th)}$	Gate-Threshold Voltage ^(Note2)	$V_{DS}=V_{GS}, I_D=-250\mu A$	-0.8	-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	$V_{DS}=-48V, V_{GS}=0V$			-1	μA
$R_{DS(on)}$	Drain-Source On-Resistance ^(Note2)	$V_{GS}=-10V, I_D=-0.5A$		2.2	6.0	Ω
		$V_{GS}=-4.5V, I_D=-0.2A$		2.5	7.0	
V_{SD}	Diode Forward Voltage	$V_{GS}=0V, I_S=-0.5A$			-1.3	V

DYNAMIC CHARACTERISTICS

C_{iss}	Input Capacitance	$V_{DS}=-5V, V_{GS}=0V, f=1MHz$		30	pF
C_{oss}	Output Capacitance			10	
C_{rss}	Reverse Transfer Capacitance			5	

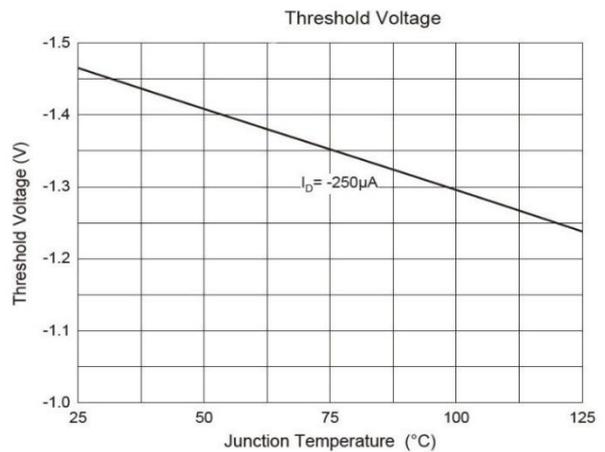
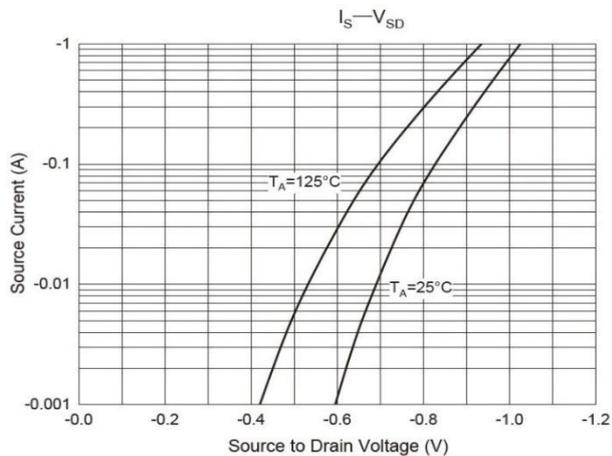
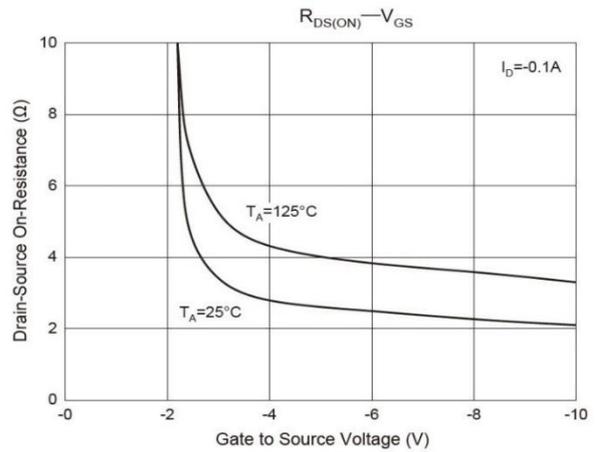
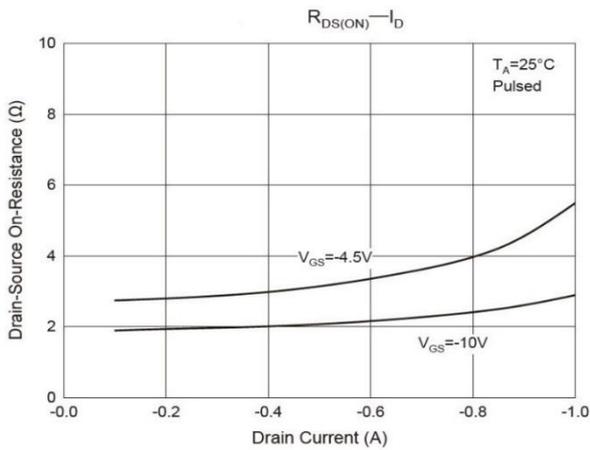
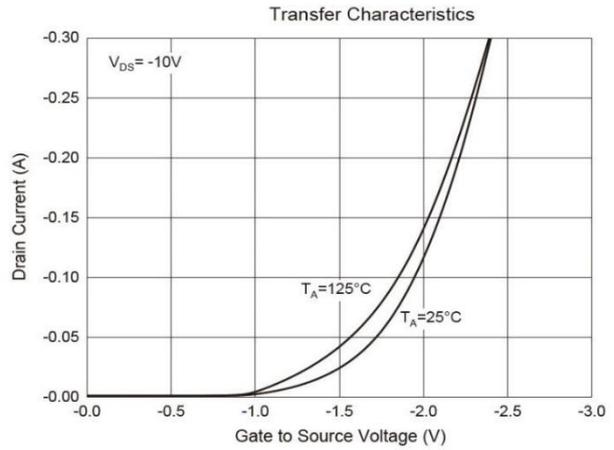
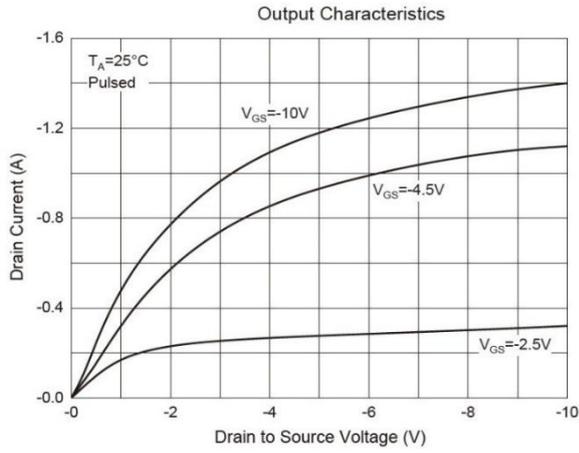
SWITCHING CHARACTERISTICS

$t_{d(on)}$	Turn-On Delay Time	$V_{DD}=-15V,$ $I_D=-2.5A, R_L=50\Omega$		2.5	ns
t_r	Turn-On Rise Time			1.0	
$t_{d(off)}$	Turn-Off Delay Time			16	
t_f	Turn-Off Fall Time			8.0	

Note:

1. Repetitive rating: Pulse width limited by junction temperature.
2. Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.

Typical Characteristics

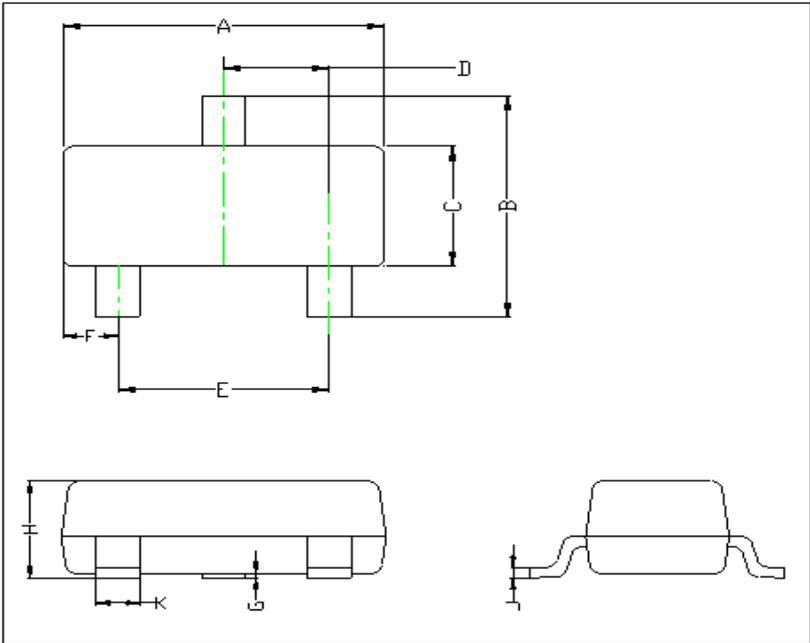


ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BSS84K	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline : SOT23



Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

SOT23 Package Outline

Note:
 1. Halogen free ,EMC
 2. Pb free solder
 3. Lead thickness solder plating
 4. Lead frame CAC-5
 5. Other Tolerance ± 0.05
 6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
 7. Unit : mm

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