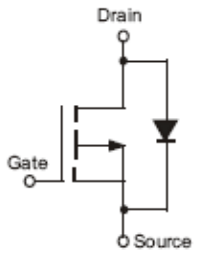
BSS84KR

P-Channel Enhancement Mode Field Effect Transistor

FEATURES

- Low On-Resistance。
- Low Gate Threshold Voltage.
- Low Input Capacitance.
- Fast Switching Speed.
- Available in Lead Free Version.

Lead-free



SOT-323

APPLICATIONS

- P-channel enhancement mode effect transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
BSS84KR	K84	SOT-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{DSS}	Drain-Source voltage	-50	V
V_{DGR}	Drain-Gate voltage	-50	V
V_{GSS}	Gate -Source voltage continuous	±20	V
I_D	Drain current (Note1) continuous	-130	mA
P_D	Power Dissipation (Note1)	200	mW
$R_{\theta JA}$	Thermal resistance,Junction-to-Ambient	625	℃/W
T_J, Tstg	Junction and Storage Temperature	-55 to +150	℃

Note: 1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on GALAXY Inc. suggested pad layoutdocument AP02001.

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V,I_D=-250μA	-50	-75	-	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=-1mA	-0.8	-1.6	-2.0	
Gate-body Leakage Forward Reverse	I_{GSS}	V_{DS}=0V, V_{GS}=20V V_{DS}=0V, V_{GS}=-20V	- -	- -	100 -100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-50V, V_{GS}=0V, T_J = 25℃	-	-	-15	μA
		V_{DS}=-50V, V_{GS}=0V, T_J = 125℃			-60	
		V_{DS}=-25V, V_{GS}=0V, T_J = 25℃	-	-	-100	
Forward transconductance	g_{FS}	V_{DS}=-25V,I_D=100mA	50	-	-	mS
Static drain-Source on-resistance	$R_{DS(ON)}$	V_{GS}=-5.0V,I_D=100mA	-	6	10	Ω
Input capacitance	C_{ISS}	V_{DS}=-25V,V_{GS}=0V,f=1.0MHz	-	-	45	pF
Output capacitance	C_{OSS}		-	-	25	
Reverse transfer capacitance	C_{RSS}		-	-	12	
Turn-On Delay Time	$t_{D(ON)}$	V_{DD} = -30V, I_D= -0.27A, V_{GS}= -10V,R_{GEN}= 50Ω	-	10	-	ns
Turn-Off Delay Time	$t_{D(OFF)}$		-	18	-	ns

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TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

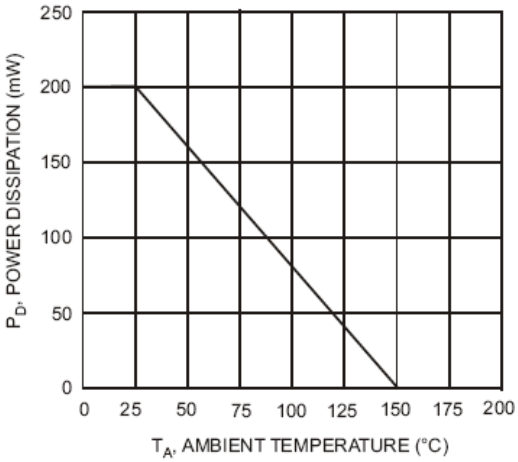

Fig. 1, Max Power Dissipation vs Ambient Temperature

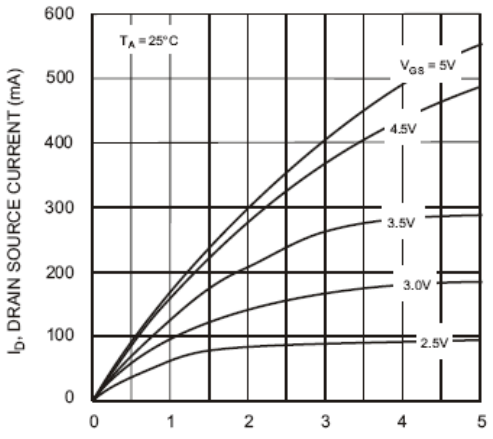

Fig. 2, Drain Source Current vs. Drain Source Voltage

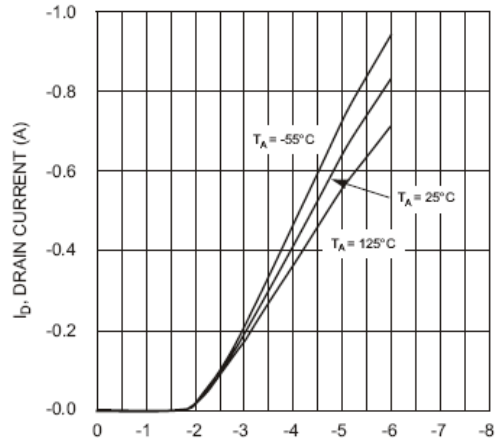

Fig. 3, Drain Current vs. Gate Source Voltage

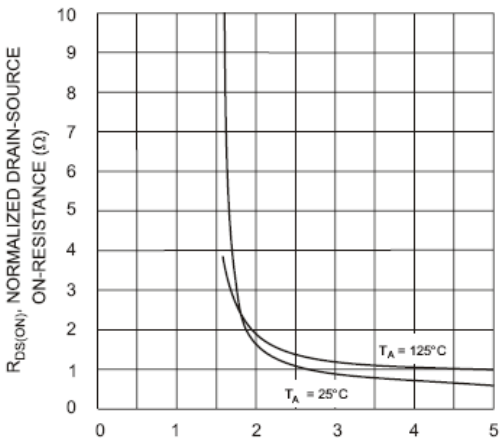

Fig. 4, On Resistance vs. Gate Source Voltage

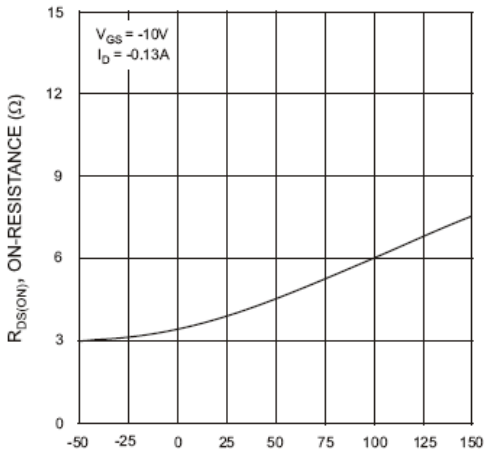

Fig. 5, On-Resistance vs. Junction Temperature

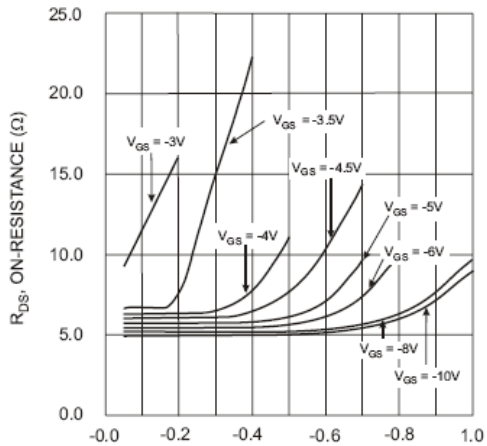

Fig. 6, On-Resistance vs. Drain Current

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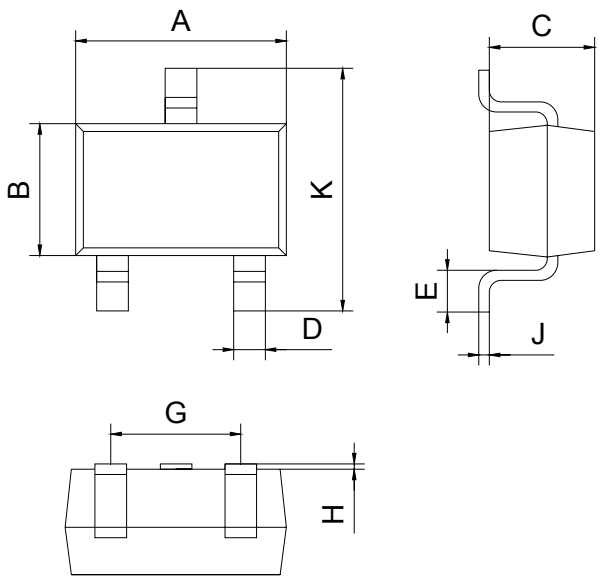
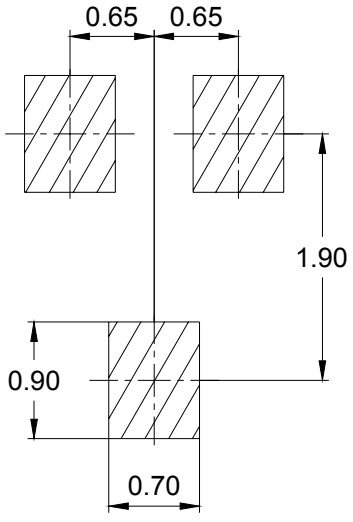
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.95 Typical	
D	0.30 Typical	
E	0.25	0.40
G	1.2	1.4
H	0.02	0.10
J	0.10 Typical	
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BSS84KR	SOT-323	3000/Tape&Reel