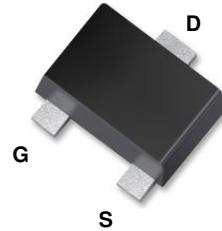
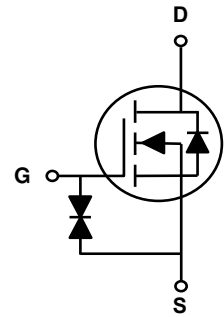


Main Product Characteristics

BV_{DSS}	20V
$R_{DS(ON)}$	380mΩ
I_D	0.75A



SOT-723



Schematic Diagram

Features and Benefits

- Advanced MOSFET process technology
- Ideal for high efficiency switched mode power supplies
- Low on-resistance with low gate charge
- Fast switching and reverse body recovery



Description

The GSFF3134 utilizes the latest techniques to achieve high cell density and low on-resistance. These features make this device extremely efficient and reliable for use in high efficiency switch mode power supplies and a wide variety of other applications.

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Max.	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current-Continuous	I_D	0.75	A
Drain Current-Pulsed ($t_p=10\mu\text{s}$)	I_{DM}	1.8	A
Power Dissipation	P_D	0.15	W
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	833	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 To +150	$^\circ\text{C}$

Electrical Characteristics (25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
On / Off Characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	20	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	0.35	-	1.1	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V, V_{GS}=0V$	-	-	1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 10V, V_{DS}=0V$	-	-	± 20	μA
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5V, I_D=0.65A$	-	-	380	m Ω
		$V_{GS}=2.5V, I_D=0.55A$	-	-	450	m Ω
		$V_{GS}=1.8V, I_D=0.45A$	-	-	800	m Ω
Forward Transconductance	g_{fs}	$V_{DS}=10V, I_D=0.8A$	-	1.6	-	S
Diode Forward Voltage	V_{SD}	$I_D=0.15A, V_{GS}=0V$	-	-	1.2	V
Dynamic and Switching Characteristics						
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=10V, R_G=10\Omega$ $V_{GS}=4.5V, I_D=500mA$	-	6.7	-	nS
Rise Time	t_r		-	4.8	-	
Turn-Off Delay Time	$t_{d(off)}$		-	17.3	-	
Fall Time	t_f		-	7.4	-	
Input Capacitance	C_{iss}	$V_{DS}=16V, V_{GS}=0V,$ $F=1MHz$	-	79	120	pF
Output Capacitance	C_{oss}		-	13	30	
Reverse Transfer Capacitance	C_{rss}		-	9	10	

Electrical Characteristic Curves

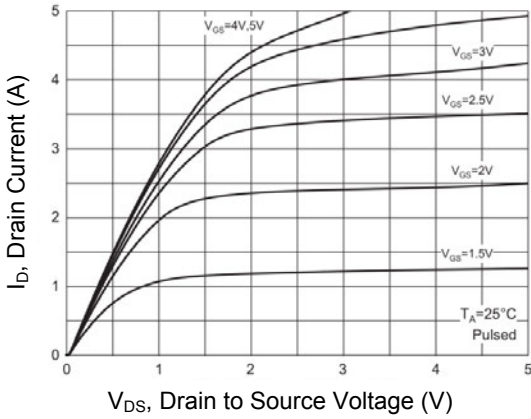


Figure 1. Output Characteristics

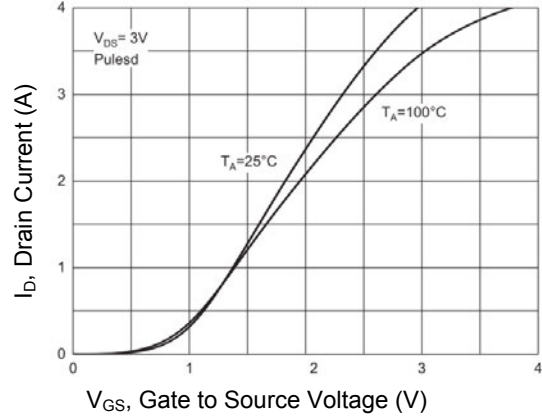


Figure 2. Transfer Characteristics

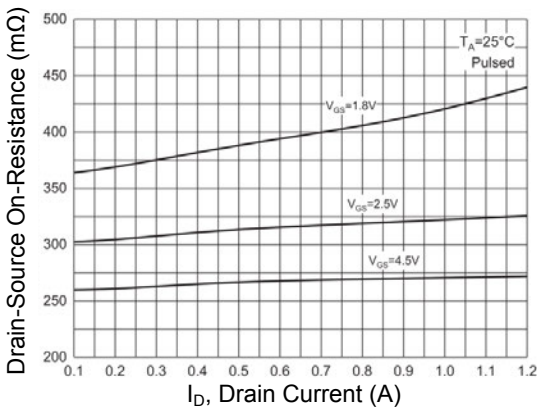


Figure 3. $R_{DS(ON)}$ vs. I_D

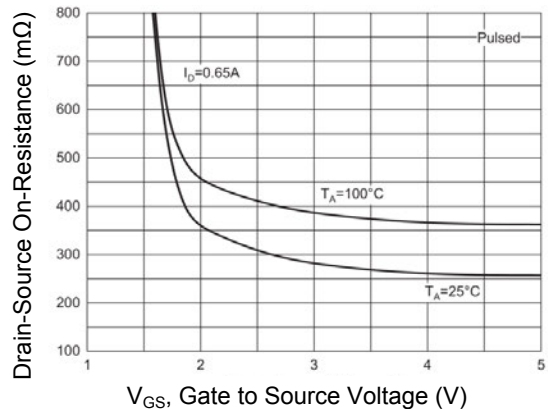


Figure 4. $R_{DS(ON)}$ vs. V_{GS}

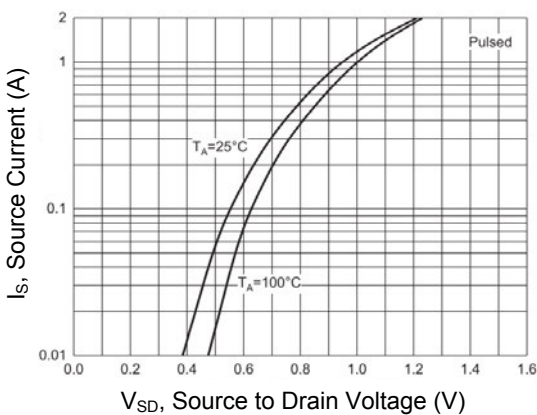


Figure 5. I_S - V_{SD} Characteristics

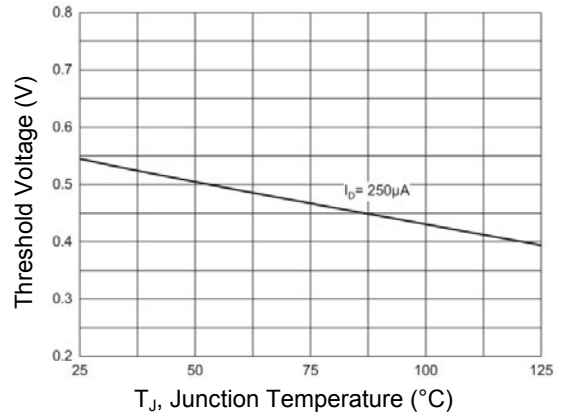
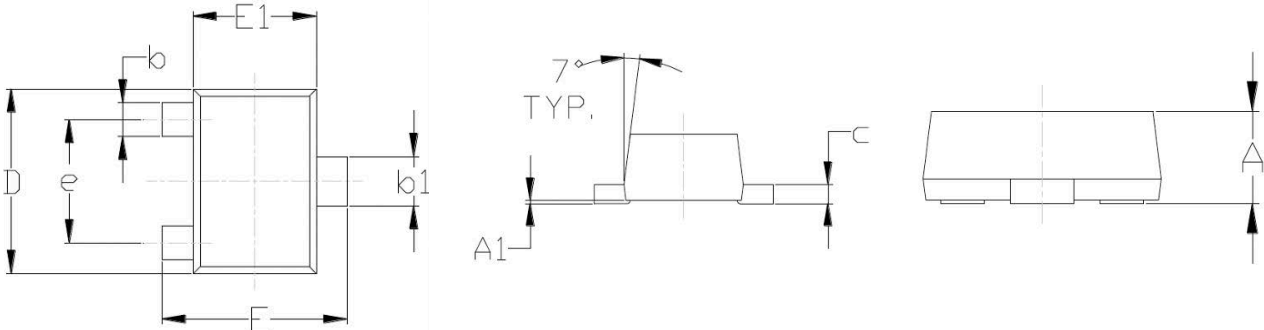


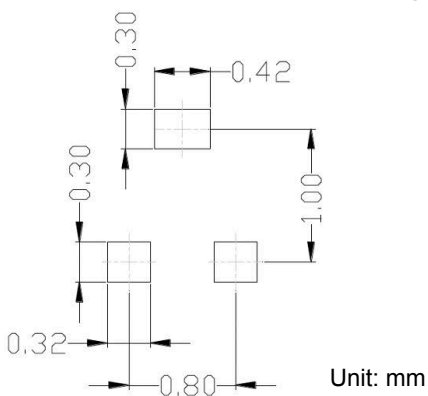
Figure 6. Threshold Voltage Characteristics

Package Outline Dimensions (SOT-723)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0.800 TYP		0.031 TYP	
θ	0°	7°	0°	7°

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSFF3134	SOT-723	KF	Tape & Reel	8,000 pcs / 7" Reel