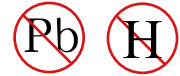




YEA SHIN TECHNOLOGY CO., LTD

YS3134KUC

N-Channel Enhancement MOSFET



VDS= 20V, ID= 0.56A

FEATURES

- 20V/560mA
 $R_{DS(ON)} \leq 400m\Omega @ V_{GS}=4.5V$
 $R_{DS(ON)} \leq 660m\Omega @ V_{GS}=2.5V$
 $R_{DS(ON)} \leq 1200m\Omega @ V_{GS}=1.8V$
- Reliable and Rugged
- Green Device Available
- ESD Protection

APPLICATION

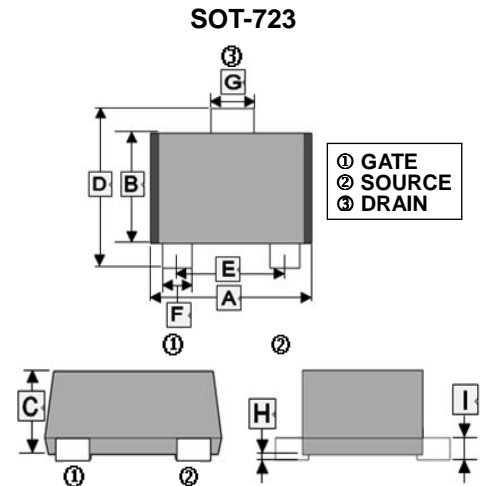
- Interfacing
- Switching

MARKING

KF

PACKAGE INFORMATION

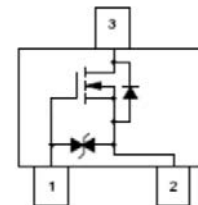
Package	MPQ	Leader Size
SOT-723	8K	7 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.150	1.250	F	0.150	0.270
B	0.750	0.850	G	0.250	0.370
C	-	0.550	H	0	0.050
D	1.150	1.250	I	-	0.170
E	0.800TYP.				

ORDER INFORMATION

Part Number	Type
YS3134KUC	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS (TA=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V _{DS}	20	V
Gate-Source Voltage	V _{GS}	±12	V
Continuous Drain Current ¹ @V _{GS} =4.5V	I _D	T _A =25°C	0.56
		T _A =85°C	0.4
Pulsed Drain Current ²	I _{DM}	2.4	A
Total Power Dissipation	P _D	150	mW
Operating Junction & Storage Temperature Range	T _J , T _{STG}	150, -55~150	°C
Thermal Data			
Thermal Resistance Junction-ambient ¹	R _{θJA}	833	°C/W

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ELECTRICAL CHARACTERISTICS (T_J=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions	
Drain-Source Breakdown Voltage	V _{(BR)DSS}	20	-	-	V	V _{GS} =0, I _D =250μA	
Gate Threshold Voltage	V _{GS(th)}	0.45	-	1	V	V _{DS} =V _{GS} , I _D =250μA	
Gate-Body Leakage Current	I _{GSS}	-	-	±10	uA	V _{DS} =0, V _{GS} =±10V	
Zero Gate Voltage Drain Current	I _{DSS}	T _J =25°C	-	-	1	uA	V _{DS} =20V, V _{GS} =0
		T _J =70°C	-	-	25	uA	V _{DS} =16V, V _{GS} =0
Drain-Source On-Resistance ³	R _{DS(ON)}		-	-	400	mΩ	V _{GS} =4.5V, I _D =0.55A
			-	-	660		V _{GS} =2.5V, I _D =0.45A
			-	-	1200		V _{GS} =1.8V, I _D =0.35A
Total Gate Charge	Q _g	-	0.76	-	nC	I _{DS} =0.25A V _{DS} =10V V _{GS} =4.5V	
Gate-Source Charge	Q _{gs}	-	0.074	-			
Gate-Drain ("Miller") Change	Q _{gd}	-	0.27	-			
Turn-on Delay Time	T _{d(on)}	-	5	-	nS	V _{DS} =10V I _D =0.15A V _{GS} =4V R _{GEN} =10Ω	
Rise Time	T _r	-	5	-			
Turn-off Delay Time	T _{d(off)}	-	24	-			
Fall Time	T _f	-	18	-			
Input Capacitance	C _{iss}	-	64	-	pF	V _{DS} =10V V _{GS} =0 f=1MHz	
Output Capacitance	C _{oss}	-	14	-			
Reverse Transfer Capacitance	C _{rss}	-	9	-			
Source-Drain Diode							
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions	
Continuous Source Current ¹	I _S	-	-	0.56	A		
Pulsed Source Current ²	I _{SM}	-	-	2.4	A		
Diode Forward Voltage ³	V _{SD}	-	-	1	V	I _S =0.15A, V _{GS} =0V	
Reverse Recovery Time	t _{rr}		4.9	-	nS	I _F =0.5A, di/dt=100A/μs, T _J =25°C	
Reverse Recovery Charge	Q _{rr}		1.0	-	nC		

Notes:

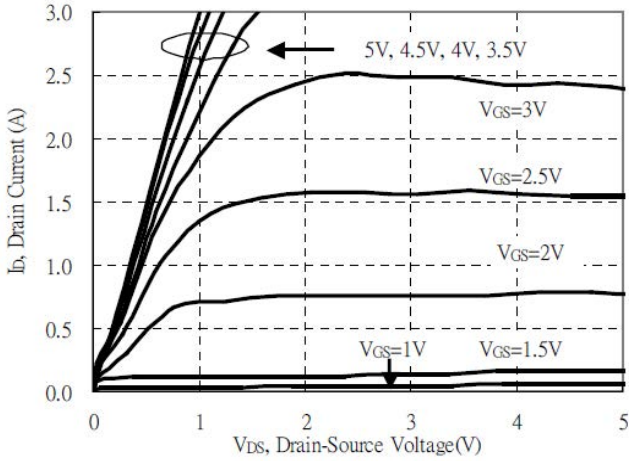
1. Surface mounted on FR4 Board using the minimum recommended pad size.
2. Pulse width limited by maximum junction temperature.
3. The data tested by pulsed, pulse width ≤ 300us, duty cycle ≤ 2%

DEVICE CHARACTERISTICS

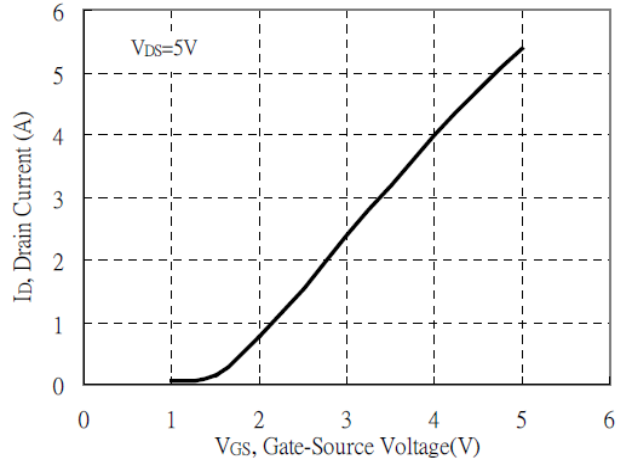
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CHARACTERISTIC CURVES

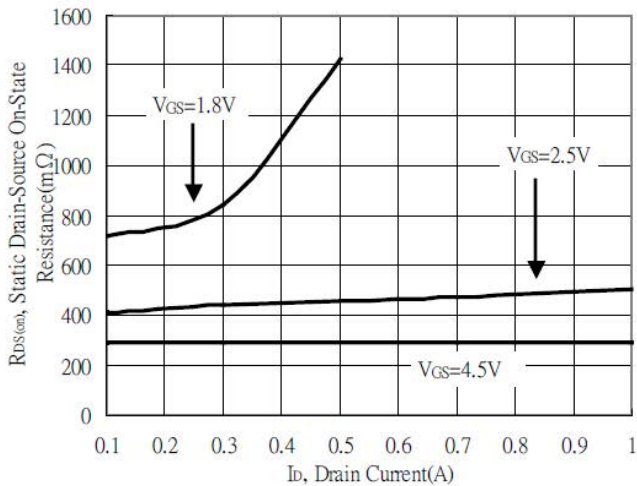
Typical Output Characteristics



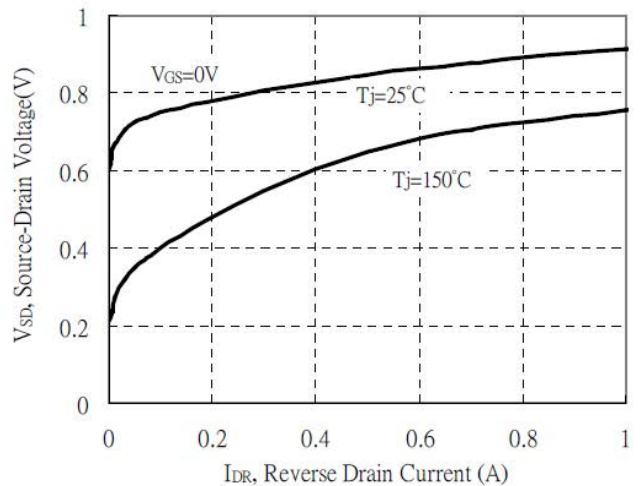
Typical Transfer Characteristics



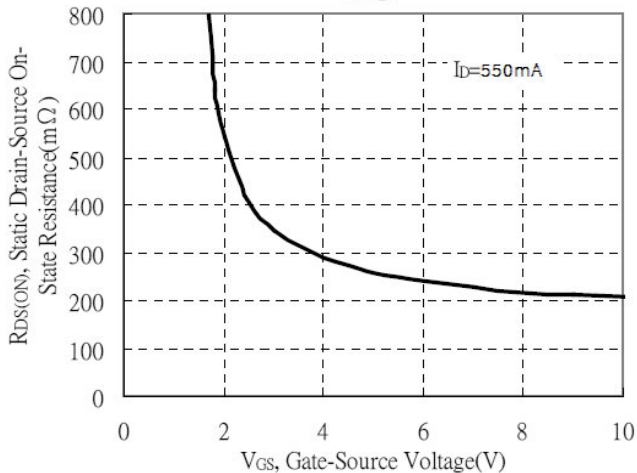
Static Drain-Source On-State resistance vs Drain Current



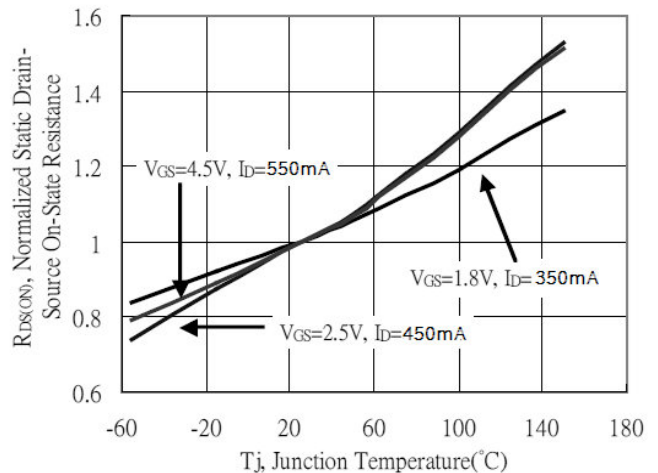
Reverse Drain Current vs Source-Drain Voltage



Static Drain-Source On-State Resistance vs Gate-Source Voltage



Drain-Source On-State Resistance vs Junction Temperature



DEVICE CHARACTERISTICS

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CHARACTERISTIC CURVES

