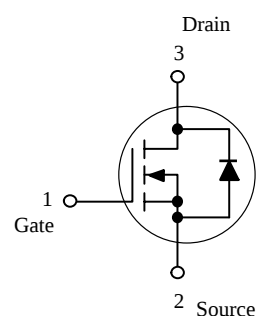


N-CHANNEL POWER MOSFET

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
FTK123LT1G	SA	3000/Tape&Reel
FTK123LT3G	SA	10000/Tape&Reel



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	100	Vdc
Gate-Source Voltage	V_{GS}	± 20	Vdc
– Continuous	V_{GSM}	± 40	Vpk
– Non-repetitive ($t_p \leq 50\mu s$)			
Drain Current	I_D	0.17	Adc
Continuous (Note 1.)	I_{DM}	0.68	
Pulsed (Note 2.)			

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (Note 3.)	P_D	225	mW
$T_A = 25^\circ C$		1.8	mW/ $^\circ C$
Derate above $25^\circ C$			
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ C/W$
Junction and Storage Temperature	T_J, T_{stg}	-55 to $+150$	$^\circ C$

1. The Power Dissipation of the package may result in a lower continuous drain current.
2. Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2.0\%$.
3. FR-5 = $1.0 \times 0.75 \times 0.062$ in.

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)

Characteristic		Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain–Source Breakdown Voltage (V _{GS} = 0, I _D = 250 μAdc)		V _{(BR)DSS}	100	–	–	Vdc
Zero Gate Voltage Drain Current (V _{GS} = 0, V _{DS} = 100 Vdc) T _J = 25 C 						

4. Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.

TYPICAL ELECTRICAL CHARACTERISTICS

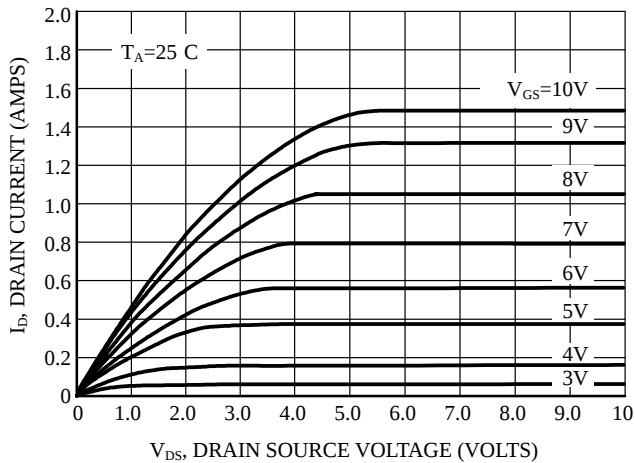


Figure 1. Ohmic Region

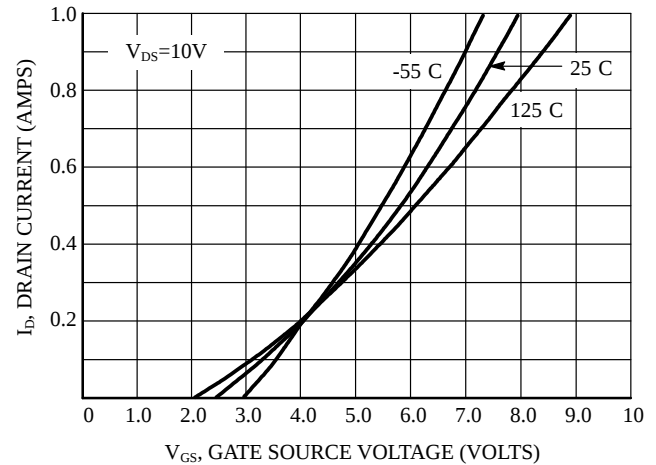


Figure 2. Transfer Characteristics

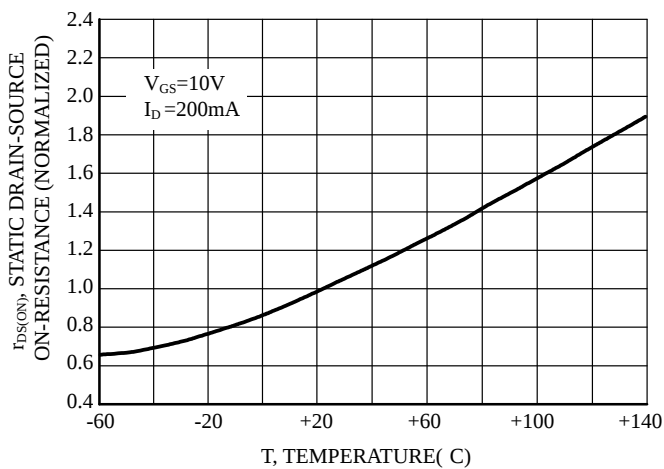


Figure 3. Temperature versus Static Drain-Source On-Resistance

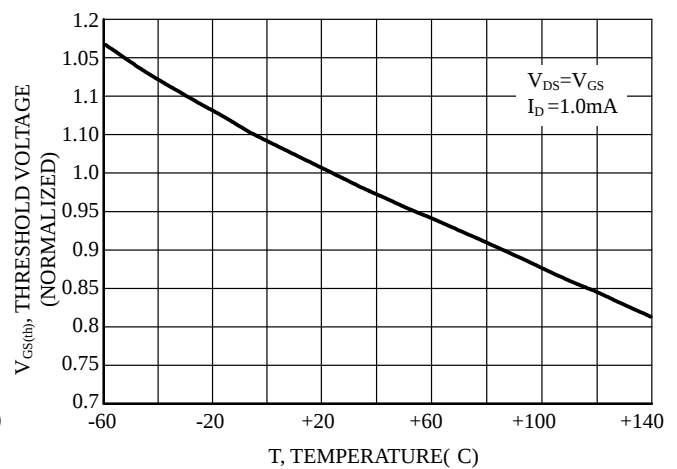
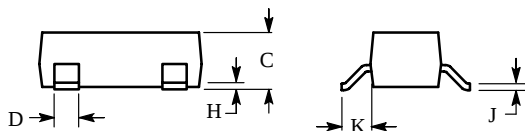
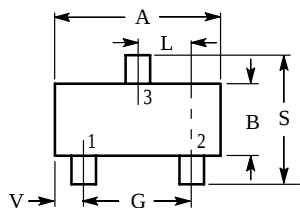


Figure 4. Temperature versus Gate Threshold Voltage

SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

PIN 1 Gate
2 Source
3 Drain

