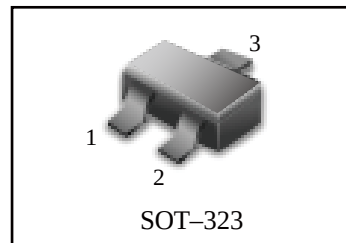


POWER MOSFET

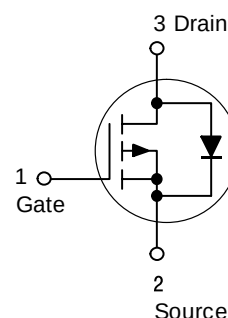
P-CHANNEL 130mAmps,50Volts

These miniature surface mount MOSFETs reduce power loss conserve energy, making this device ideal for use in small power management circuitry. Typical applications are dc-dc converters, load switching , power management in portable and battery-powered products such as computers , printers , cellular and cordless telephones.



FEATURES

- 1)Energy Efficient
- 2)Miniature SOT-323 Surface Mount Package Saves Board Space
- 3)We declare that the material of product compliant with RoHS requirements and Halogen Free.



DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
FTK84U	PD	3000/Tape&Reel

MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Drain-to-Source Voltage	V _{DSS}	50	V
Gate-to-Source Voltage – Continuous	V _{GS}	±20	V
Drain Current			mA
– Continuous @ T _A = 25°C	I _D	130	
– Pulsed Drain Current (t _p ≤ 10 μs)	I _{DM}	520	
Total Power Dissipation @ T _A = 25°C	P _D	225	mW
Junction and Storage temperature	T _j , T _{stg}	–55~+150	°C
Thermal Resistance – Junction-to-Ambient	R _{θJA}	556	°C/W
Maximum Lead Temperature for Soldering Purposes, for 10 seconds	T _L	260	°C

●ELECTRICAL CHARACTERISTICS (Ta= 25℃)

OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Drain-to-Source Breakdown Voltage (V _{GS} = 0 Vdc, I _D = 250μAdc)	V _{BR(DSS)}	50	–	–	V
Zero Gate Voltage Drain Current (V _{DS} = 25 Vdc, V _{GS} = 0 Vdc) (V _{DS} = 50 Vdc, V _{GS} = 0 Vdc) (V _{DS} = 50 Vdc, V _{GS} = 0 Vdc, T _J = 125°C)	I _{DSS}	– – –	– – –	0.1 15 60	μA
Gate-Body Leakage Current (V _{GS} = ± 20 Vdc, V _{DS} = 0 Vdc)	I _{GSS}	–	–	±10	nA

ON CHARACTERISTICS (Note 1.)

Gate-Source Threshold Voltage (V _{DS} = V _{GS} , I _D = 250μAdc)	V _{GS(th)}	0.8	–	2.0	V
Static Drain-to-Source On-Resistance (V _{GS} = 5.0 Vdc, I _D = 100 mAdc)	R _{DS(on)}	–	5.0	10	Ohms
Transfer Admittance (V _{DS} = 25Vdc, I _D = 100mAdc, f = 1.0kHz)	y _{fs}	50	–	–	mS

DYNAMIC CHARACTERISTICS

Input Capacitance(V _{DS} = 5.0 Vdc)	C _{iss}	–	30	–	pF
Output Capacitance(V _{DS} = 5.0 Vdc)	C _{oss}	–	10	–	
Transfer Capacitance(V _{DG} = 5.0 Vdc)	C _{rss}	–	5	–	

SWITCHING CHARACTERISTICS (Note 2.)

Turn-On Delay Time	(V _{DD} = –15Vdc, I _D = –2.5Adc, R _L =50Ω)	t _{d(on)}	–	2.5	–	ns
Rise Time		t _r	–	1	–	
Turn-Off Delay Time		t _{d(off)}	–	16	–	
Fall Time		t _f	–	8	–	
Gate Charge		Q _T	–	6000	–	pC

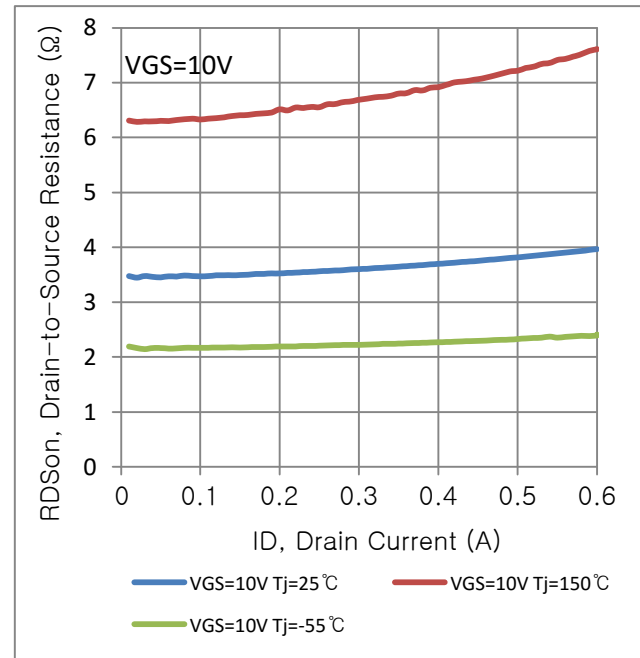
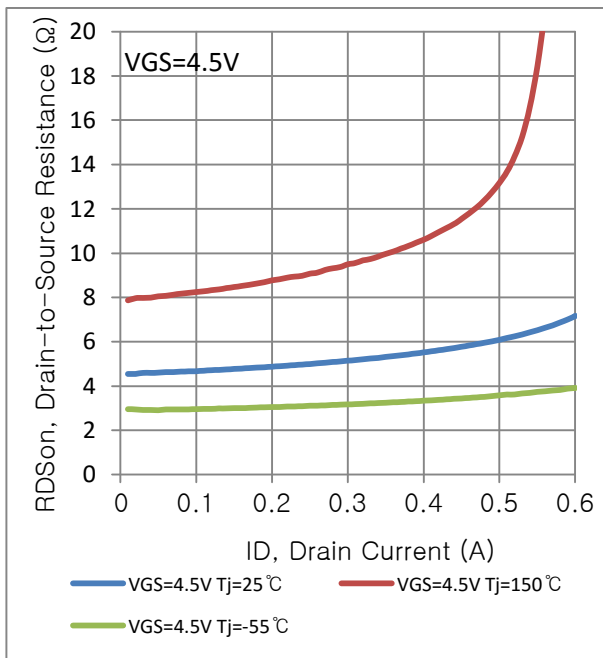
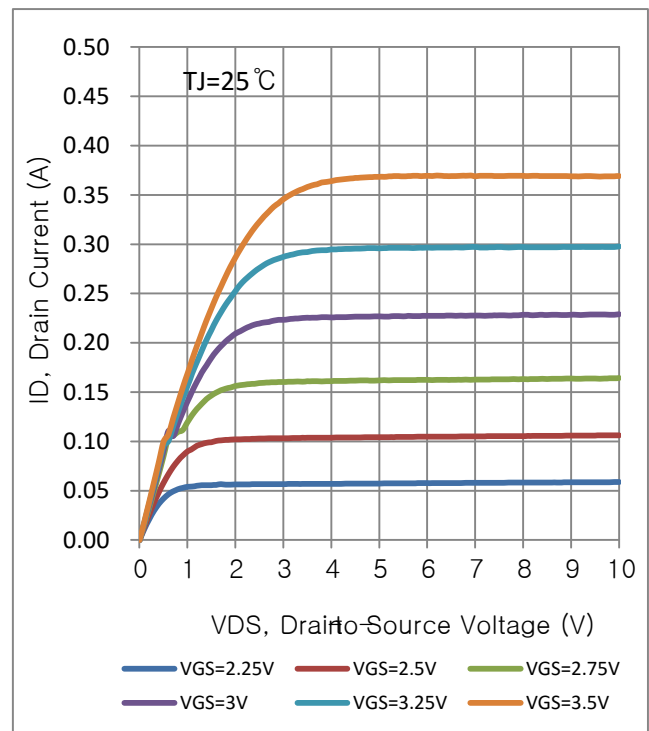
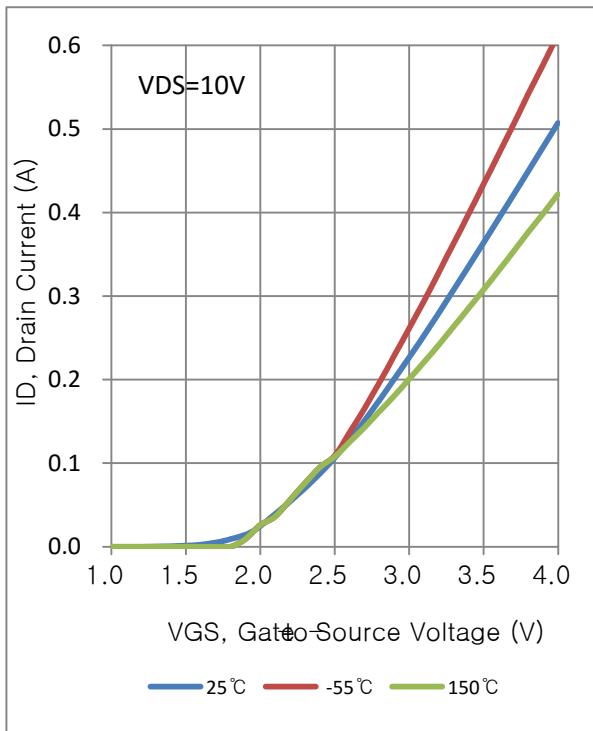
SOURCE-DRAIN DIODE CHARACTERISTICS

Continuous Current	I _S	–	–	0.13	A
Pulsed Current	I _{SM}	–	–	0.52	
Forward Voltage (Note 2.)	V _{SD}	–	2.5	–	V

1. Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%.

2. Switching characteristics are independent of operating junction temperature.

ELRCTRICAL CHARACTERISTICS CURVES



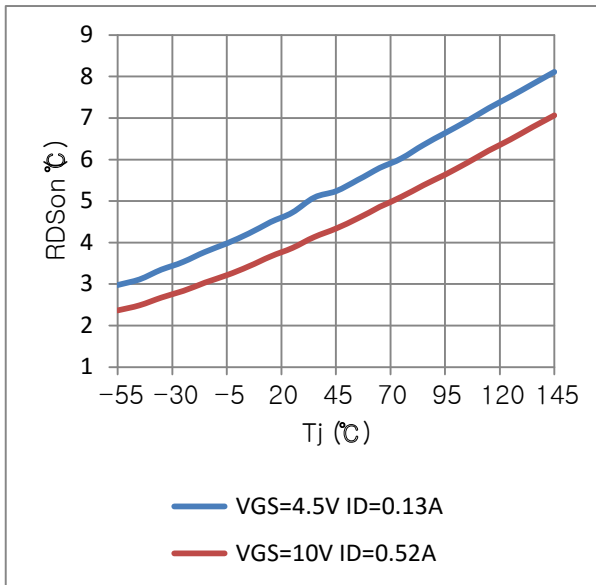


FIG.5 On-Resistance Variation with Temperature

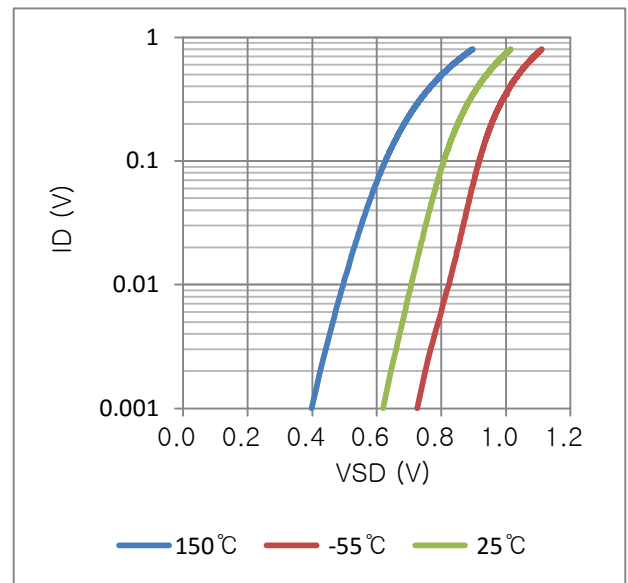
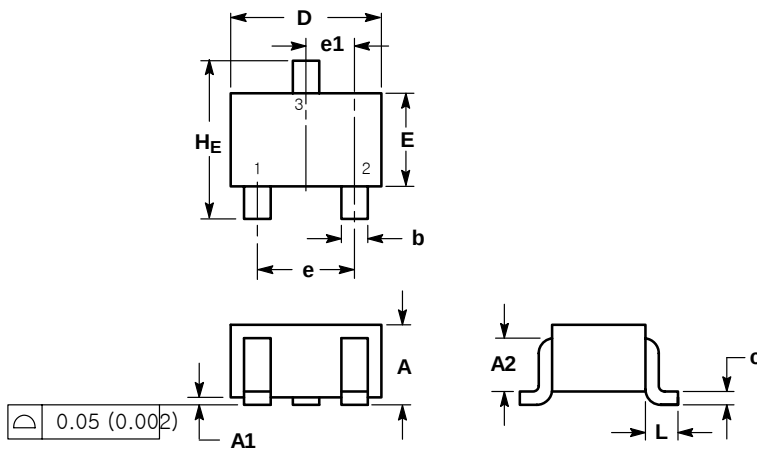


FIG.6 Body Diode Forward Voltage

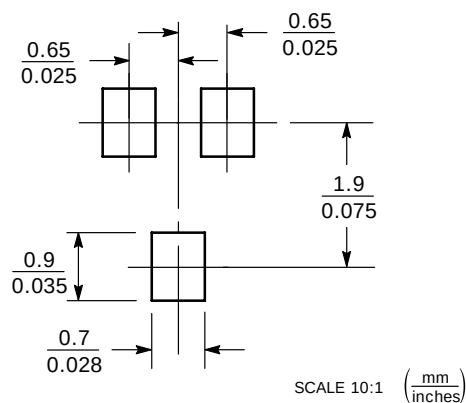
SOT-323



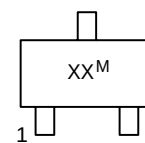
NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2	0.7 REF			0.028 REF		
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.10	2.20	0.071	0.083	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	0.047	0.051	0.055
e1	0.65 BSC			0.026 BSC		
L	0.425 REF			0.017 REF		
HE	2.00	2.10	2.40	0.079	0.083	0.095

SOLDERING FOOTPRINT*



GENERIC MARKING DIAGRAM



XX = Specific Device Code
M = Date Code
■ = Pb-Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot may or may not be present.