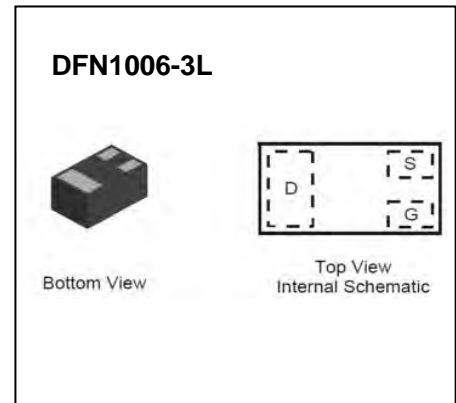


DFN1006-3L Plastic-Encapsulate MOSFETs

FTK3134KDFN1006 N-Channel MOSFET

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
20V	500mΩ@4.5V	0.75A
	700mΩ@2.5V	
	900mΩ@1.8V	



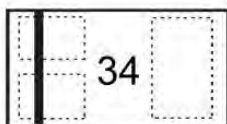
FEATURE

- Lead Free Product is Acquired
- Surface Mount Package
- N-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive
- ESD Protected Gate

APPLICATION

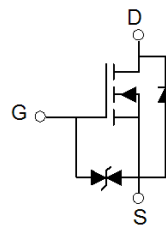
- Load/ Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics
- Logic Level Shift

MARKING:



Top View
Bar Denotes Gate and Source Side

Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Typical Gate-Source Voltage	V_{GS}	±12	V
Continuous Drain Current (note 1)	I_D	0.75	A
Pulsed Drain Current ($t_p=10\mu\text{s}$)	I_{DM}	1.8	A
Power Dissipation (note 1)	P_D	100	mW
Thermal Resistance from Junction to Ambient (note 1)	$R_{\theta JA}$	1250	$^\circ\text{C/W}$
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~ 150	$^\circ\text{C}$
Lead Temperature for Soldering Purposes(1/8" from case for 10 s)	T_L	260	$^\circ\text{C}$



FTK3134KDFN1006

MOSFET ELECTRICAL CHARACTERISTICS

MOSFET ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	20			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
Gate threshold voltage ⁽²⁾	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.35	0.75	1.1	V
Drain-source on-resistance ⁽²⁾	$R_{DS(on)}$	$V_{GS} = 4.5V, I_D = 150mA$		250	500	m Ω
		$V_{GS} = 2.5V, I_D = 150mA$		300	700	
		$V_{GS} = 1.8V, I_D = 150mA$		370	900	
		$V_{GS} = 1.5V, I_D = 20mA$		460		
		$V_{GS} = 1.2V, I_D = 10mA$		1200		
Forward tranconductance	g_{FS}	$V_{DS} = 10V, I_D = 150mA$	150			mS
Dynamic characteristics⁽⁴⁾						
Input Capacitance	C_{iss}	$V_{DS} = 16V, V_{GS} = 0V, f = 1MHz$		79	120	pF
Output Capacitance	C_{oss}			13	20	
Reverse Transfer Capacitance	C_{rss}			9	15	
Switching Characteristics⁽⁴⁾						
Turn-on delay time ⁽³⁾	$t_{d(on)}$	$V_{DS} = 10V, I_D = 500mA,$ $V_{GS} = 4.5V, R_G = 10\Omega$		6.7		ns
Turn-on rise time ⁽³⁾	t_r			4.8		
Turn-off delay time ⁽³⁾	$t_{d(off)}$			17.3		
Turn-off fall time ⁽³⁾	t_f			7.4		
Source-Drain Diode characteristics						
Diode Forward voltage ⁽³⁾	V_{DS}	$I_S = 0.15A, V_{GS} = 0V$			1.2	V

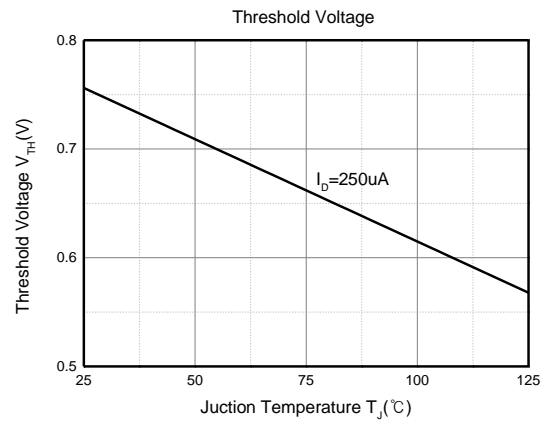
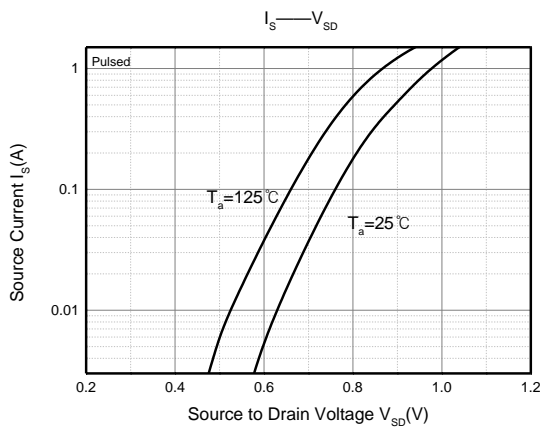
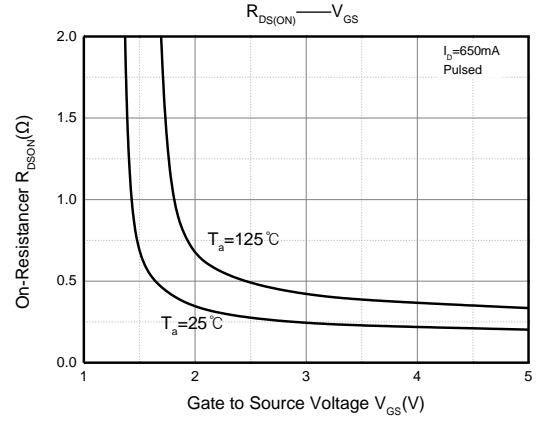
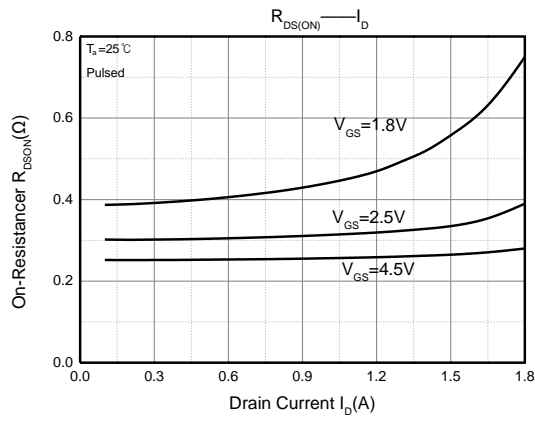
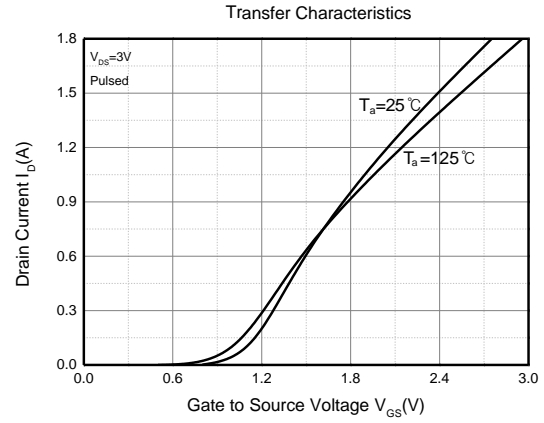
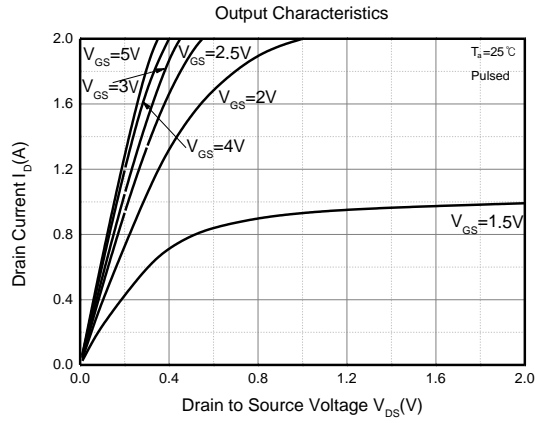
Notes:

1. Surface mounted on FR4 board using the minimum recommended pad size.
2. Pulse Test : Pulse Width=300 μs , Duty Cycle=2%.
3. Switching characteristics are independent of operating junction temperatures.
4. Guaranteed by design, not subject to producing.

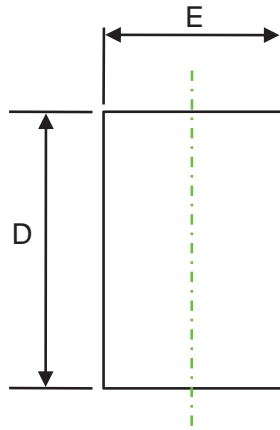


FTK3134KDFN1006

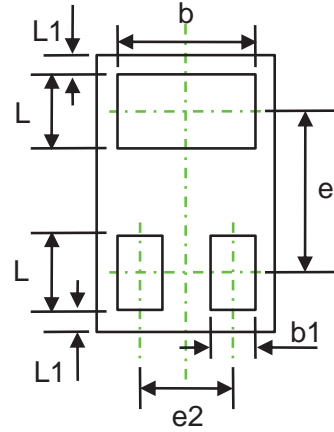
Typical Characteristics



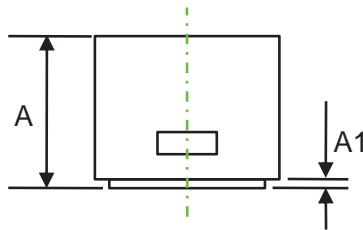
DFN1006-3L Package Outline Dimensions



TOP VIEW



BOTTOM VIEW

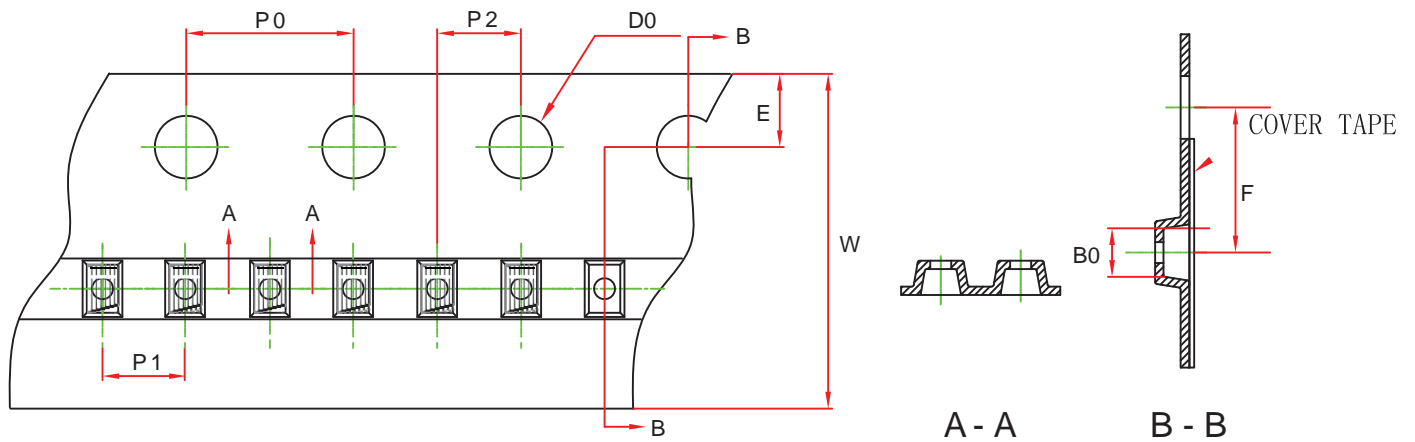


SIDE VIEW

Symbol	Dimensions In Millimeters (mm)		
	Min.	Typ.	Max.
A	0.44	0.47	0.50
A1	0.00	0.03	0.05
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.45	0.50	0.55
e	-	0.65	-
e2	-	0.35	-
L1	0.05 REF.		
L	0.20	0.25	0.30
b1	0.10	0.15	0.20

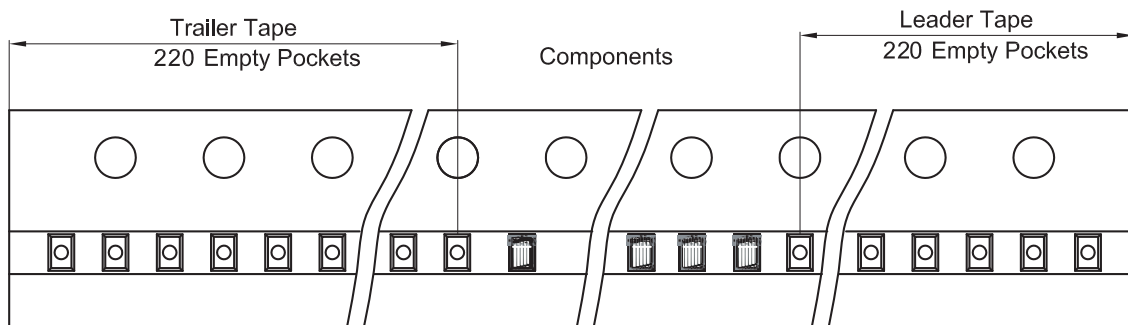
DFN1006-3L Tape and Reel

DFN1006-3L Embossed Carrier Tape

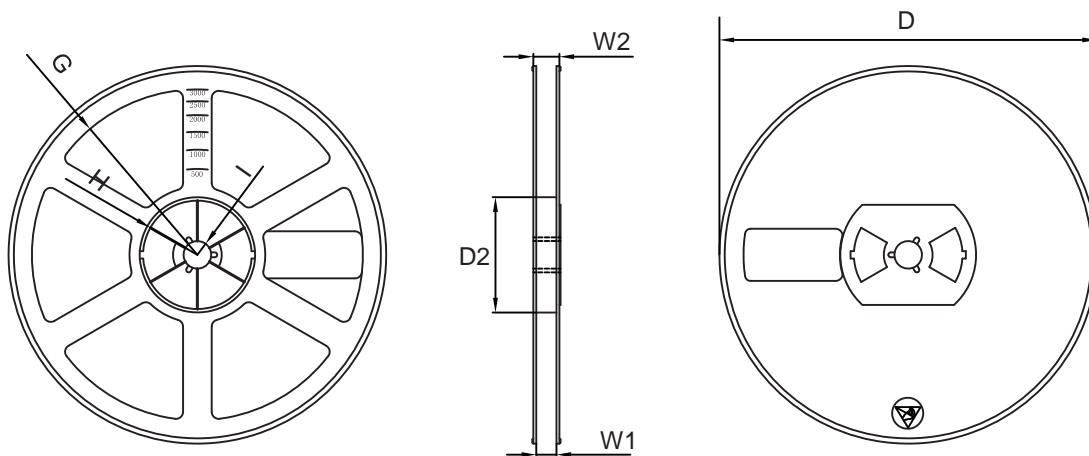


Dimensions In Millimeters (mm)								
Pkg type	B0	P0	P1	P2	E	F	W	D0
DFN1006-3L	1.11	4.00	2.00	2.00	1.75	3.50	8.00	1.55
Tolerance	+/-0.06	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.3	+/-0.1

DFN1006-3L Tape Leader and Trailer



DFN1006-3L Reel



Symbol	Dimensions In Millimeters (mm)						
	D	D2	G	H	I	W1	W2
7" Dia	Φ178.00	54.50	R78.00	R25.6	R6.5	9.50	12.30
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-2	+/-1.5

REEL	Reel Size	Box	Box size(mm)	Carton	Carton Size(mm)
10000 pcs	7 inch	150000 pcs	220x 220x 210	600000 pcs	450x 450x 240