

P17LF10SLKD

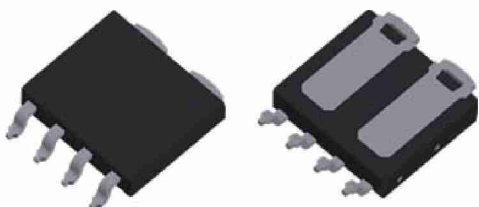
Power MOSFETs
100V, 17A, Dual N-channel

Feature

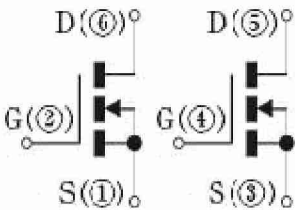
- N-channel
- Small SMD
- Dual type
- 4.5V Gate Drive
- Based on AEC-Q101
- Halogen free
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): LF_Dual



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tc=25°C , per FET)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-55 to 175	°C
Channel tempertature	Tch		-55 to 175	°C
Drain-source voltage	V _{DSS}		100	V
Gate-source voltage	V _{GSS}		±20	V
Continuous drain current(DC)	I _D		17	A
Continuous drain current(Peak)	I _{DP}	Pulse width 10μs, duty=1/100	51	A
Total power dissipation	P _T		62	W
Single avalanche current	I _{AS}	Starting Tch=25°C Tch≤150°C	17	A
Single avalanche energy	E _{AS}	Starting Tch=25°C Tch≤150°C	32	mJ

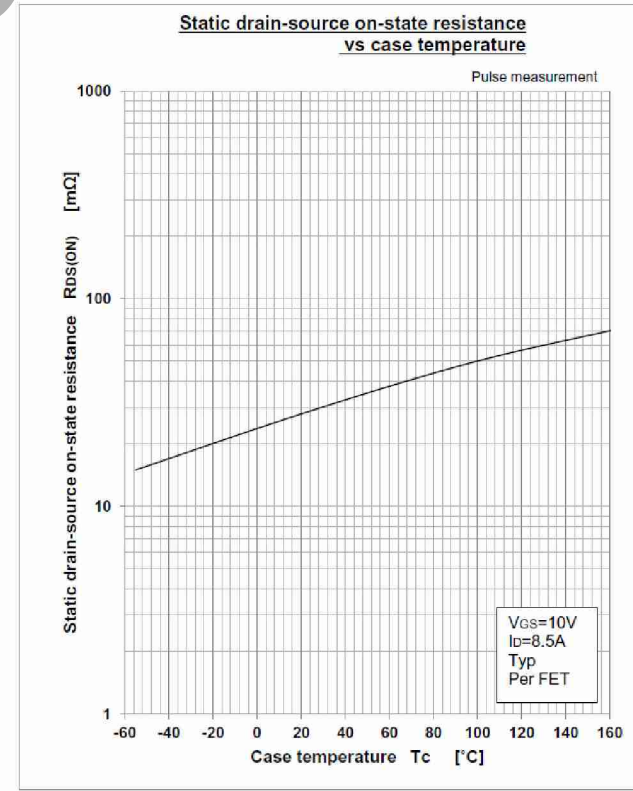
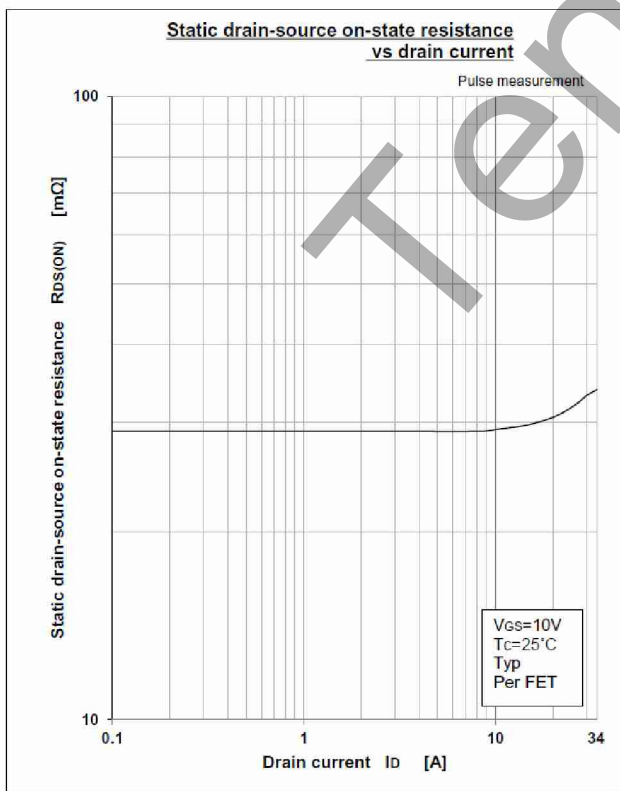
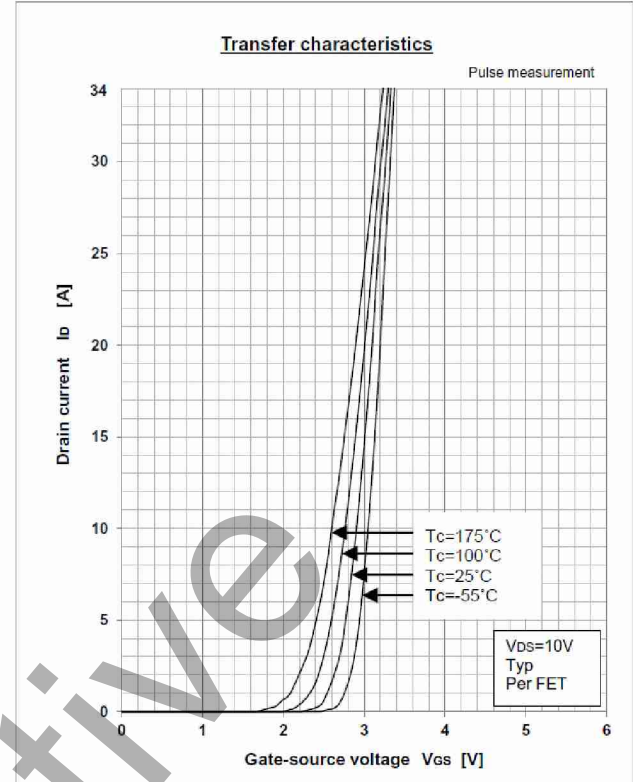
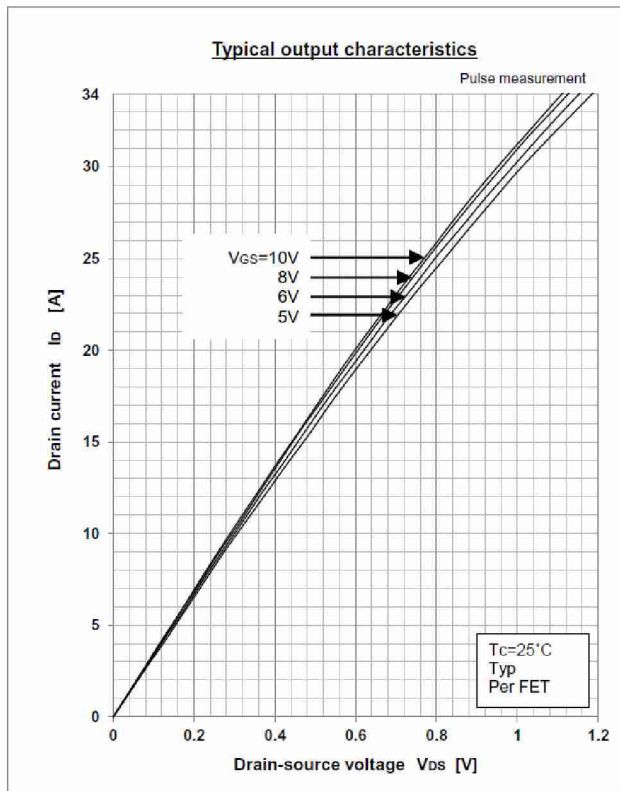
※ :See the original Specifications

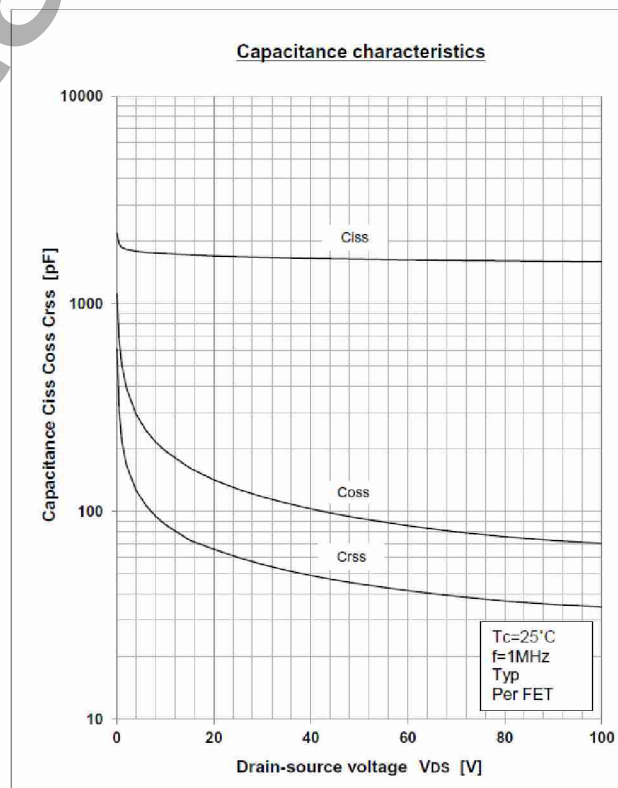
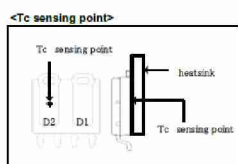
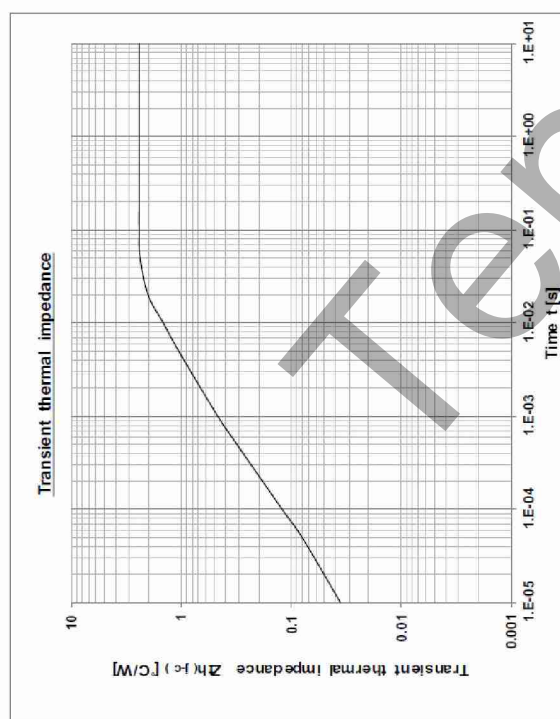
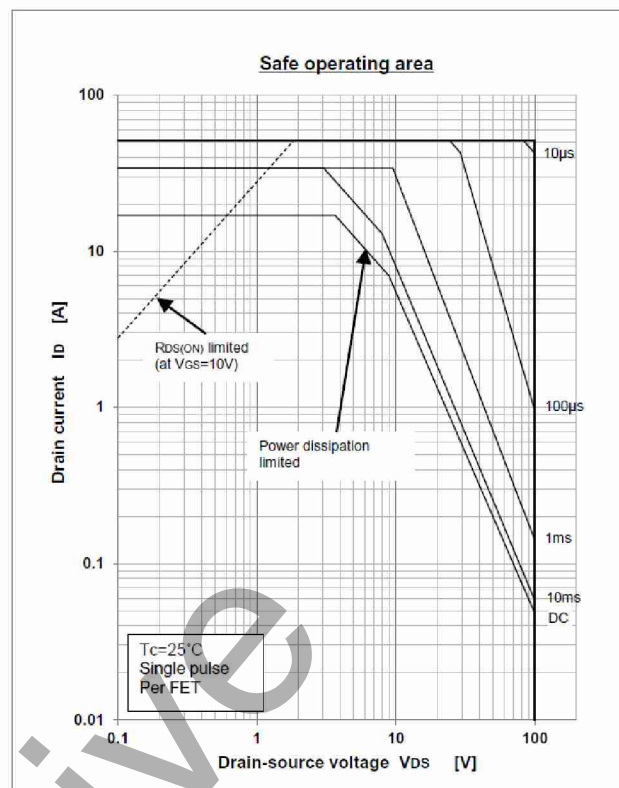
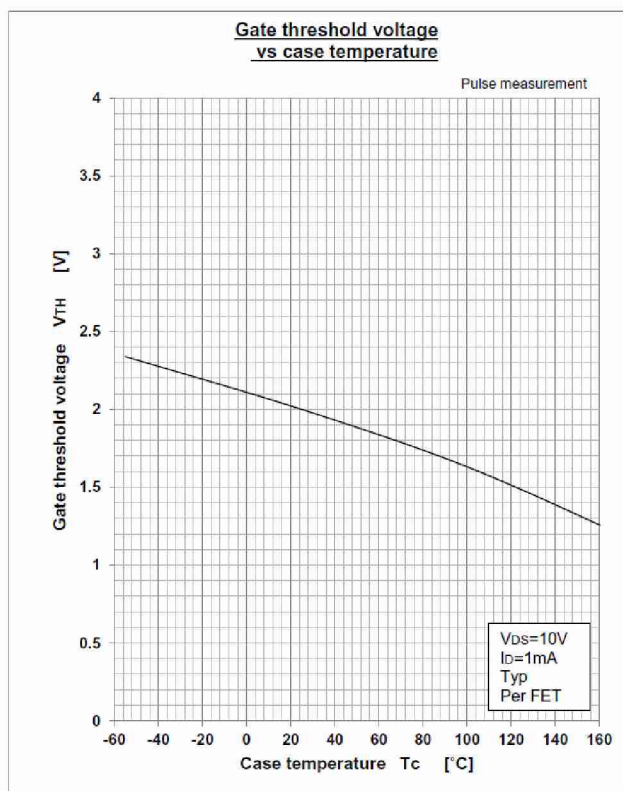
Electrical Characteristics (unless otherwise specified : Tc=25°C, per FET)

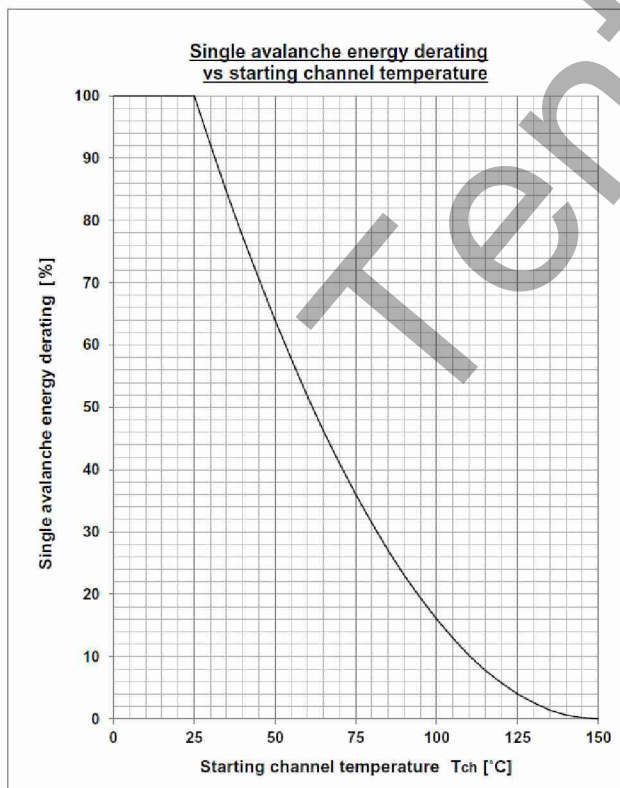
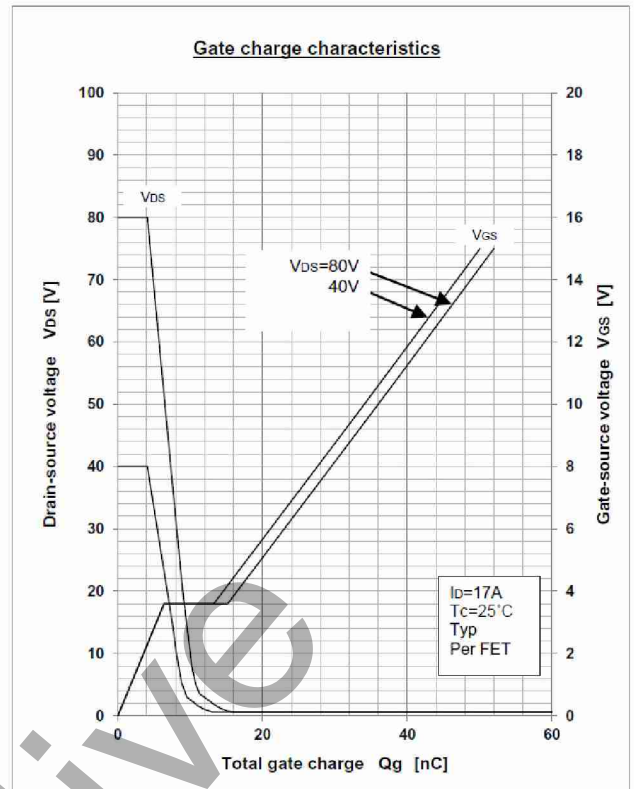
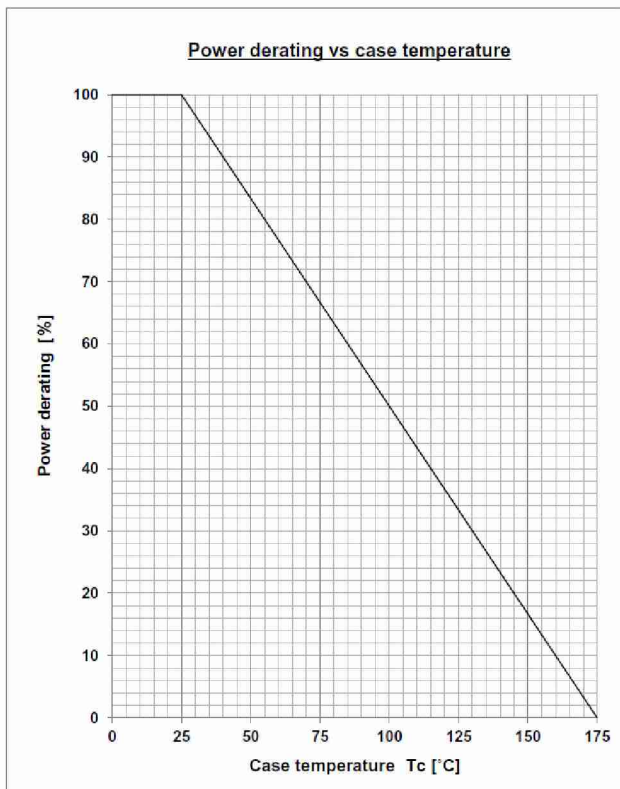
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Drain-Source breakdown voltage	$V_{(BR)DSS}$	ID=1mA, VGS=0V	100			V
Zero gate voltage drain current	I_{DSS}	VDS=100V, VGS=0V			1	μA
Gate-source leakage current	I_{GSS}	VGS=±20V, VDS=0V			±0.1	μA
Forward transconductance	g_{fs}	ID=8.5A, VDS=10V	9			S
Static drain-source on-state resistance	$R_{DS(ON)}$	ID=8.5A, VGS=10V		0.029	0.036	Ω
Static drain-source on-state resistance	$R_{DS(ON)}$	ID=8.5A, VGS=4.5V		0.032	0.042	Ω
Gate threshold voltage	Vth	ID=1mA, VDS=10V	1.5	2	2.5	V
Source-drain diode forward voltage	V_{SD}	IS=17A, VGS=0V			1.5	V
Thermal resistance	Rth(j-c)	Junction to case, with heatsink			2.41	°C/W
Total gate charge	Qg	VDD=80V, VGS=10V, ID=17A		36		nC
Gate to source charge	Qgs	VDD=80V, VGS=10V, ID=17A		7		nC
Gate to drain charge	Qgd	VDD=80V, VGS=10V, ID=17A		9		nC
Input capacitance	Ciss	VDS=25V, VGS=0V, f=1MHz		1685		pF
Reverse transfer capacitance	Crss	VDS=25V, VGS=0V, f=1MHz		60		pF
Output capacitance	Coss	VDS=25V, VGS=0V, f=1MHz		128		pF
Turn-on delay time	td(on)	ID=8.5A, RL=5.88Ω, VDD=50V, Rg=0Ω, VGS(+)=10V, VGS(-)=0V		9		ns
Rise time	tr	ID=8.5A, RL=5.88Ω, VDD=50V, Rg=0Ω, VGS(+)=10V, VGS(-)=0V		24		ns
Turn-off delay time	td(off)	ID=8.5A, RL=5.88Ω, VDD=50V, Rg=0Ω, VGS(+)=10V, VGS(-)=0V		26		ns
Fall time	tf	ID=8.5A, RL=5.88Ω, VDD=50V, Rg=0Ω, VGS(+)=10V, VGS(-)=0V		5		ns
Diode reverse recovery time	trr	IF=17A, VGS=0V, di/dt=100A/μs		53		ns
Diode reverse recovery charge	Qrr	IF=17A, VGS=0V, di/dt=100A/μs		95		nC

※ : See the original Specifications

CHARACTERISTIC DIAGRAMS

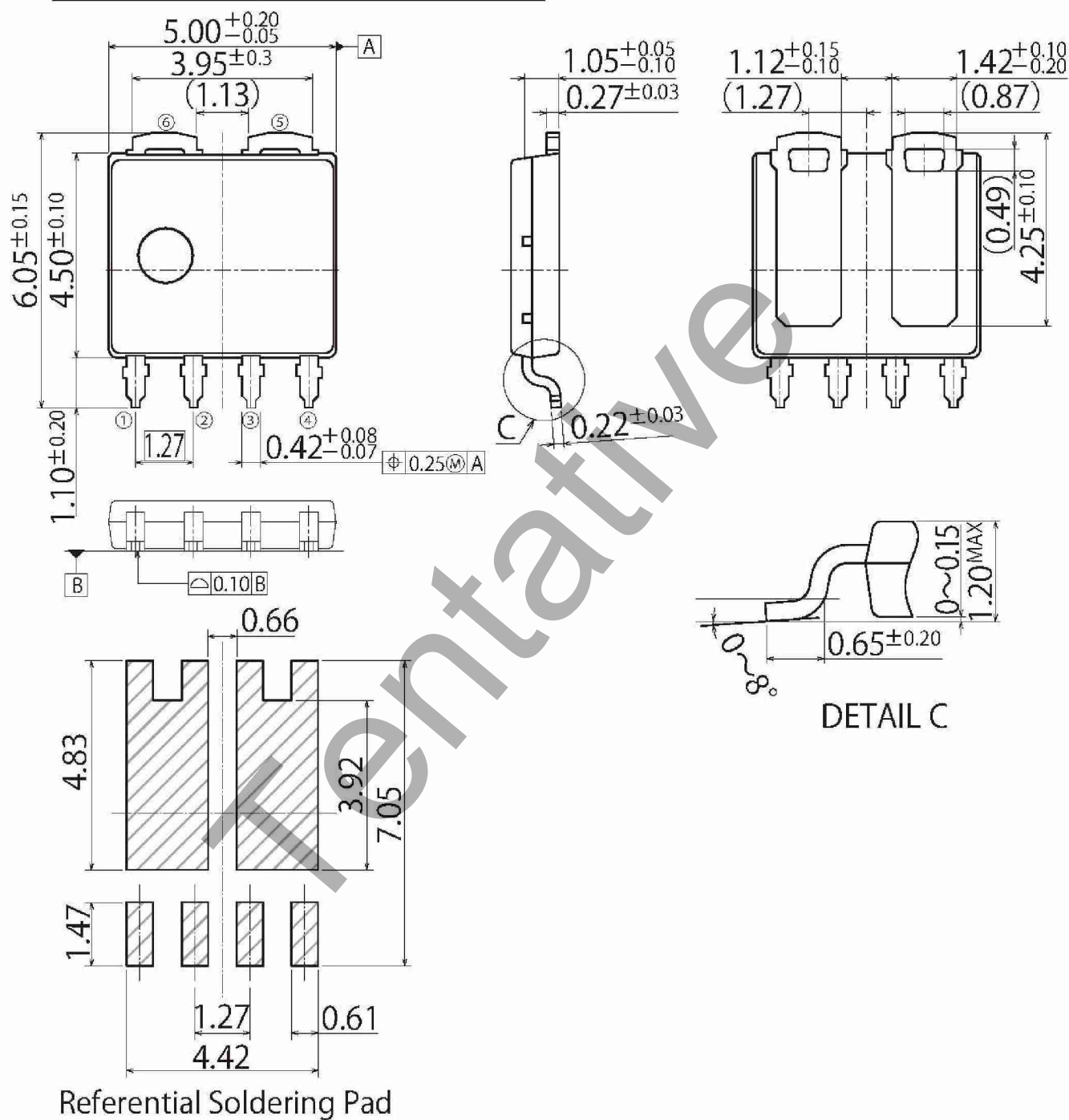






G8

JEDEC Code	—
JEITA Code	—
House Name	LF_Dual



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