

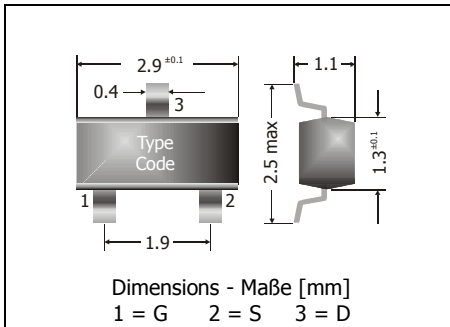
MMFTN170

N

N-Channel Enhancement Mode Field Effect Transistor
N-Kanal Feldeffekt Transistor – Anreicherungstyp

N

Version 2011-01-28



Power dissipation – Verlustleistung

300 mW

Plastic case
KunststoffgehäuseSOT-23
(TO-236)

Weight approx. – Gewicht ca.

0.01 g

Plastic material has UL classification 94V-0
Gehäusematerial UL94V-0 klassifiziertStandard packaging taped and reeled
Standard Lieferform getupet auf Rolle

Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

			MMFTN170
Drain-Source-voltage – Drain-Source-Spannung	G short	V _{DSS}	60 V
Drain-Gate-voltage – Drain-Gate-Spannung	R _{GS} < 1 MΩ	V _{DGR}	60 V
Gate-Source-voltage continuous Gate-Source-Spannung dauernd		V _{GSS}	± 20 V
Power dissipation – Verlustleistung		P _{tot}	300 mW
Drain current continuous – Drainstrom (dc)		I _D	500 mA
Peak Drain current – Drain-Spitzenstrom		I _{DM}	800 mA
Junction temperature – Sperrschichttemperatur		T _j	150°C
Storage temperature – Lagerungstemperatur		T _s	-55...+150°C

Characteristics (T_j = 25°C)**Kennwerte (T_j = 25°C)**

		Min.	Typ.	Max.
Drain-Source breakdown voltage – Drain-Source-Durchbruchspannung I _D = 100 μA		60 V		
V _{(BR)DSS}				
Drain-Source leakage current – Drain-Source Leckstrom V _{DS} = 25 V				0.5 μA
G short I _{DSS}				
Gate-Body leakage current – Gate-Substrat Leckstrom V _{GS} = 15 V				10 nA
I _{GSS}				
Gate-Source threshold voltage – Gate-Source Schwellspannung V _{GS} = V _{DS} , I _D = 1 mA		0.8 V		3 V
V _{GS(th)}				
Drain-Source on-state resistance – Drain-Source Einschaltwiderstand V _{GS} = 10 V, I _D = 200 mA				5 Ω
R _{DS(on)}				
Forward Transconductance – Übertragungssteilheit V _{DS} ≥ 2 V _{DS(on)} , I _D = 200 mA			320 mS	
g _{FS}				
Input Capacitance – Eingangskapazität V _{DS} = 10 V, f = 1 MHz			40 pF	
C _{iss}				
Output Capacitance – Ausgangskapazität V _{DS} = 10 V, f = 1 MHz			30 pF	
C _{oss}				
Reverse Transfer Capacitance – Rückwirkungskapazität V _{DS} = 10 V, f = 1 MHz			10 pF	
C _{rss}				
Turn-On Time – Einschaltzeit V _{DD} = 25 V, I _D = 500 mA, V _{GS} = 10 V, R _G = 50 Ω				10 ns
t _{d(on)}				
Turn-Off Delay Time – Ausschaltverzögerung V _{DD} = 25 V, I _D = 500 mA, V _{GS} = 10 V, R _G = 50 Ω				10 ns
t _{d(off)}				