

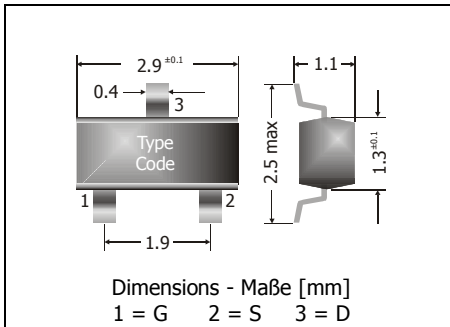
MMFTN170

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