

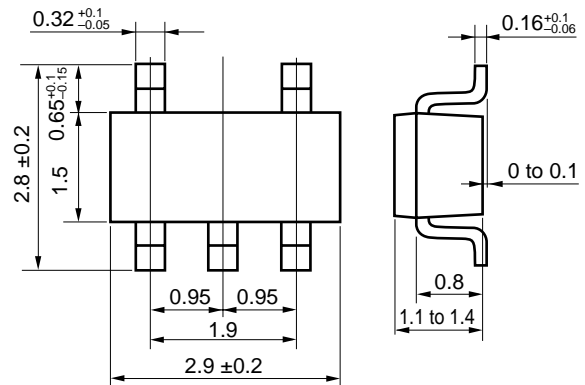
N-CHANNEL MOS FET (5-PIN 2 CIRCUITS)

The μ PA502T is a mini-mold device provided with two MOS FET circuits. It achieves high-density mounting and saves mounting costs.

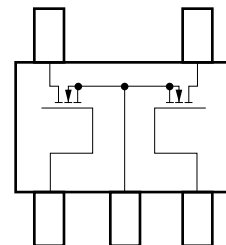
FEATURES

- Two source common MOS FET circuits in package the same size as SC-59
- Complement to μ PA503T
- Automatic mounting supported

PACKAGE DIMENSIONS (in millimeters)



PIN CONNECTION (Top view)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Drain to Source Voltage	V_{bss}	50	V
Gate to Source Voltage	V_{gss}	± 20	V
Drain Current (DC)	$I_{D(DC)}$	100	mA
Drain Current (pulse)	$I_{D(pulse)}^*$	200	mA
Total Power Dissipation	P_T	300 (TOTAL)	mW
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to 150	$^\circ\text{C}$

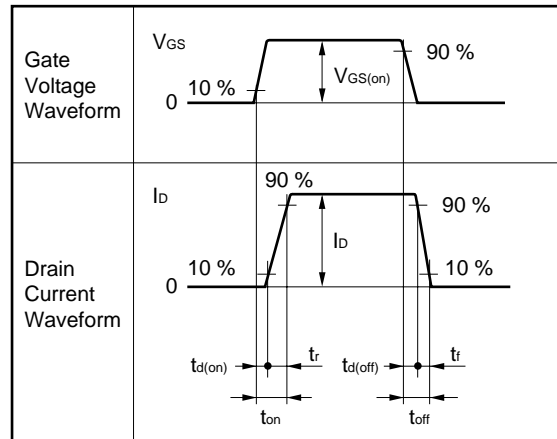
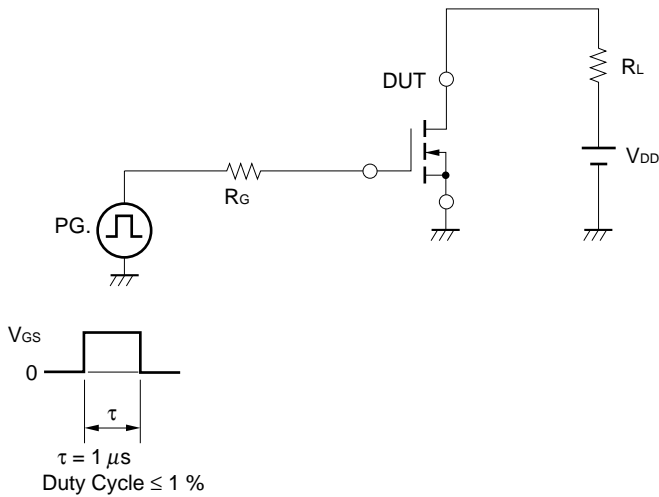
* $PW \leq 10$ ms, Duty Cycle ≤ 50 %

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

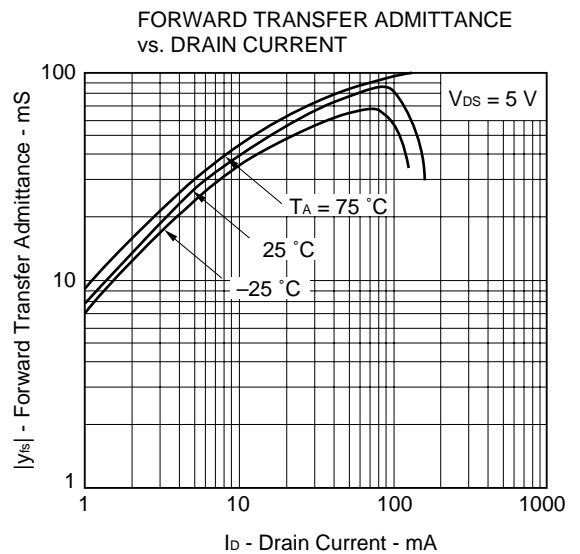
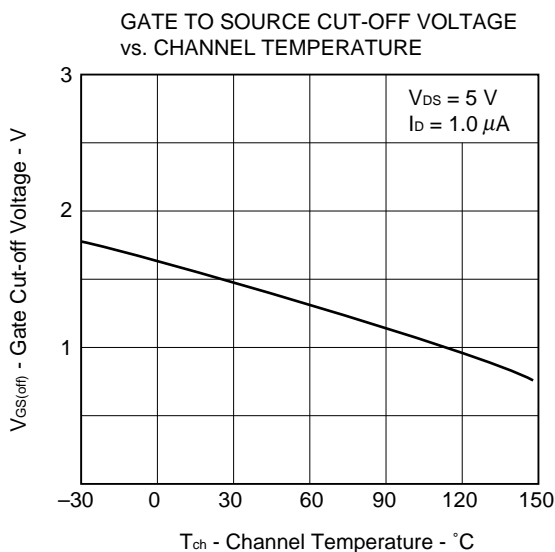
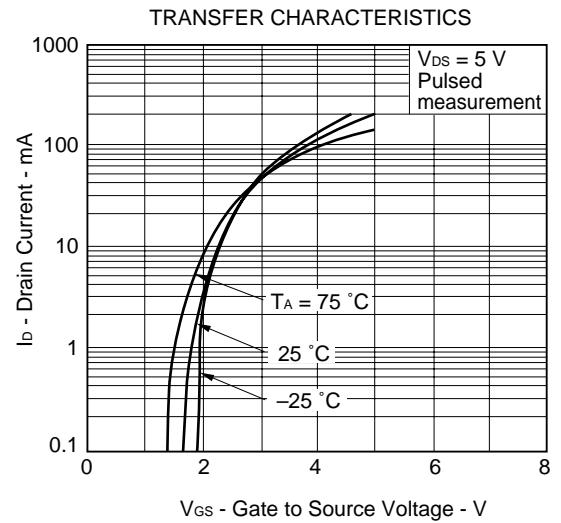
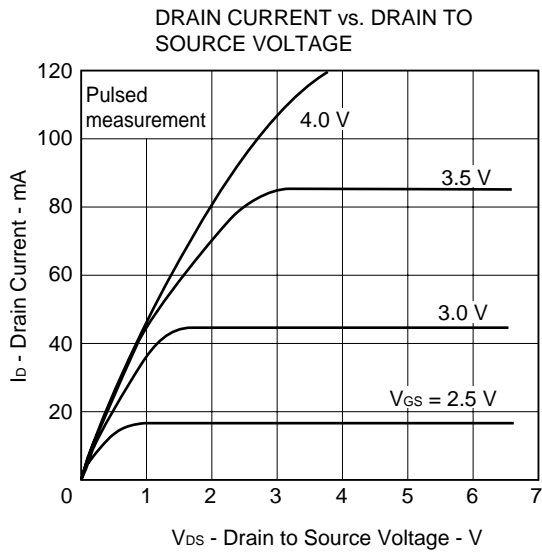
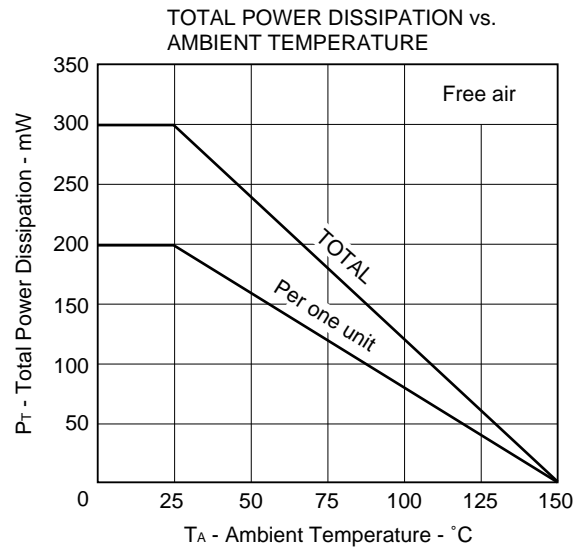
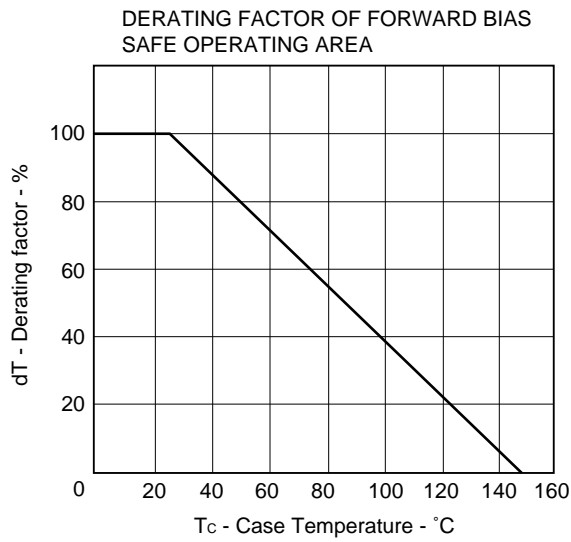
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Drain Cut-off Current	I _{DSS}	V _{DS} = 50 V, V _{GS} = 0			1.0	μA
Gate Leakage Current	I _{GSS}	V _{GS} = ±20 V, V _{DS} = 0			±1.0	μA
Gate Cut-off Voltage	V _{GS(off)}	V _{DS} = 5.0 V, I _D = 1.0 μA	0.8	1.4	1.8	V
Forward Transfer Admittance	y _{fs}	V _{DS} = 5.0 V, I _D = 10 mA	20			mS
Drain to Source On-State Resistance	R _{DS(on)1}	V _{GS} = 4.0 V, I _D = 10 mA		19	30	Ω
Drain to Source On-State Resistance	R _{DS(on)2}	V _{GS} = 10 V, I _D = 10 mA		15	25	Ω
Input Capacitance	C _{iss}	V _{DS} = 5.0 V, V _{GS} = 0, f = 1.0 MHz		16		pF
Output Capacitance	C _{oss}			12		pF
Reverse Transfer Capacitance	C _{rss}			3		pF
Turn-On Delay Time		t _{d(on)} V _{GS(on)} = 5.0 V, R _G = 10 Ω V _{DD} = 5.0 V, I _D = 10 mA R _L = 500 Ω		17		ns
Rise Time	t _r			10		ns
Turn-Off Delay Time	t _{d(off)}			68		ns
Fall Time	t _f			38		ns

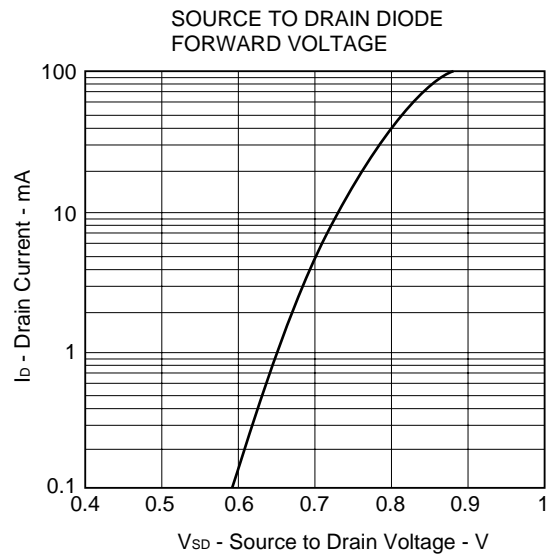
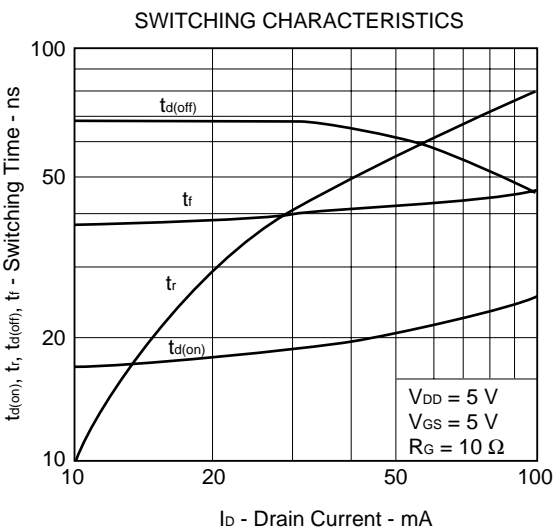
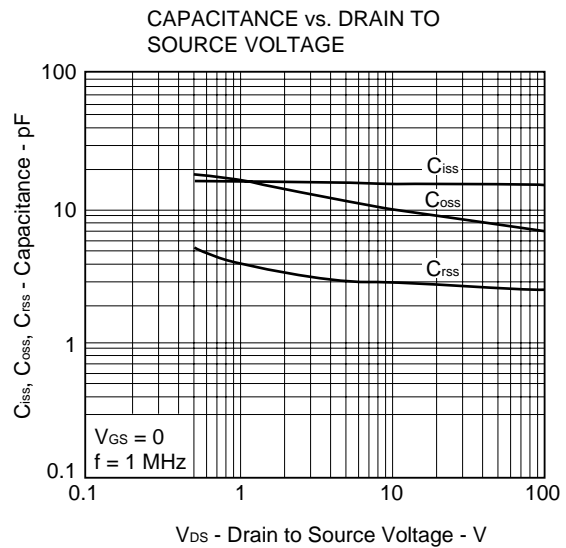
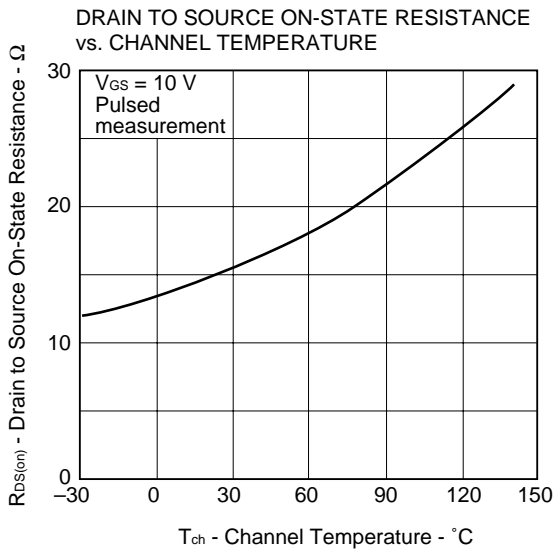
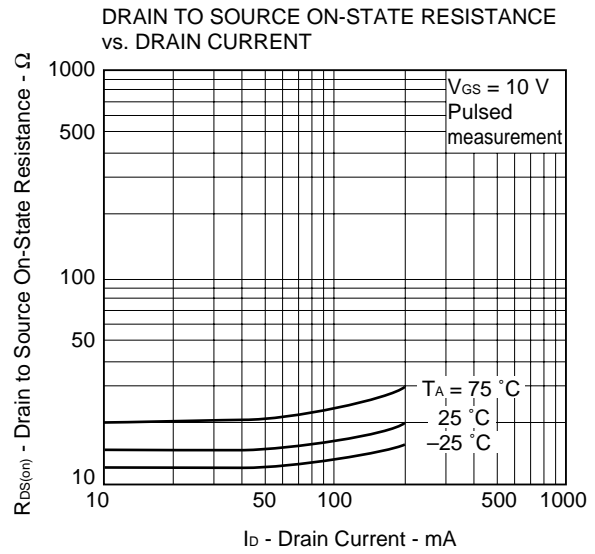
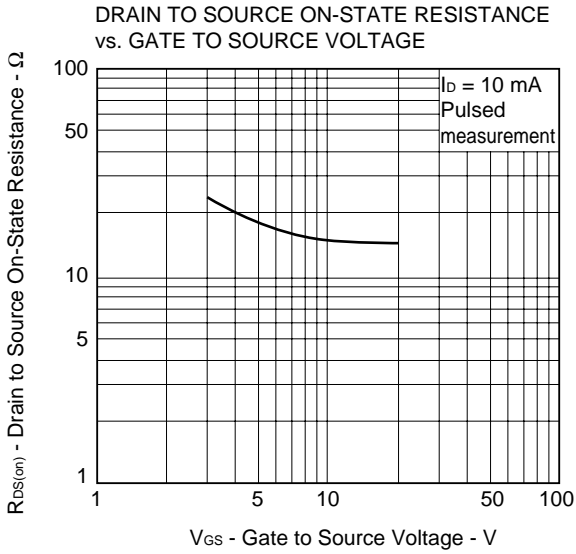
Marking: DA

SWITCHING TIME MEASUREMENT CIRCUIT AND MEASUREMENT CONDITIONS (RESISTANCE LOADED)



TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)





REFERENCE

Document Name	Document No.
NEC semiconductor device reliability/quality control system	TEI-1202
Quality grade on NEC semiconductor devices	IEI-1209
Semiconductor device mounting technology manual	C10535E
Guide to quality assurance for semiconductor devices	MEI-1202
Semiconductor selection guide	X10679E

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Specific: Aircrafts, aerospace equipment, submersible repeaters, nuclear reactor control systems, life support systems or medical equipment for life support, etc.

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Anti-radioactive design is not implemented in this product.