

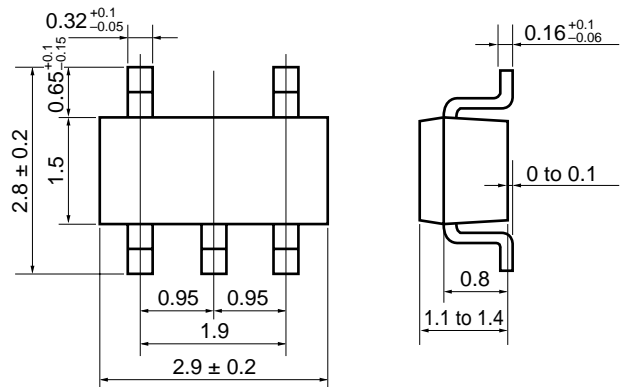
P-CHANNEL MOS FET (5-PIN 2 CIRCUITS)

The μ PA503T is a mini-mold device provided with two MOSFET 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 PA502T
- Automatic mounting supported

PACKAGE DIMENSIONS
 (in millimeters)

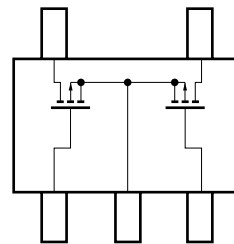


ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Drain to Source Voltage	V_{DSS}	-50	V
Gate to Source Voltage	V_{GSS}	± 16	V
Drain Current (DC)	$I_{D(PC)}$	-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 %

PIN CONNECTION
 (Top view)

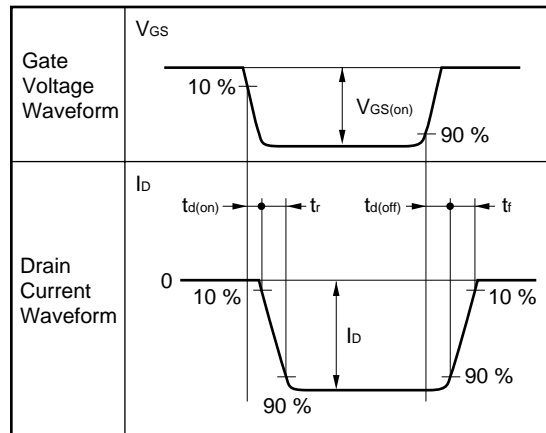
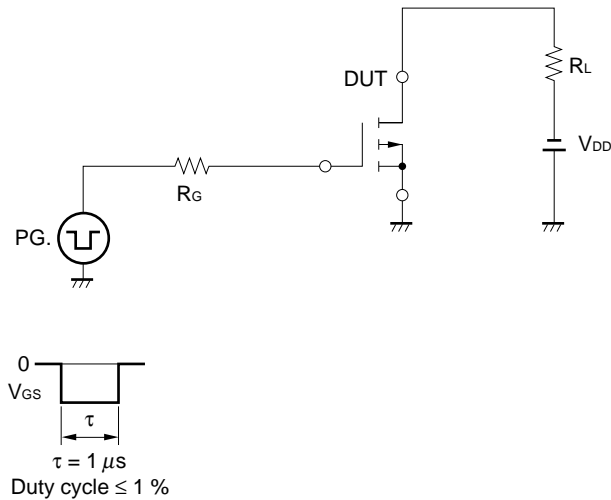


ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

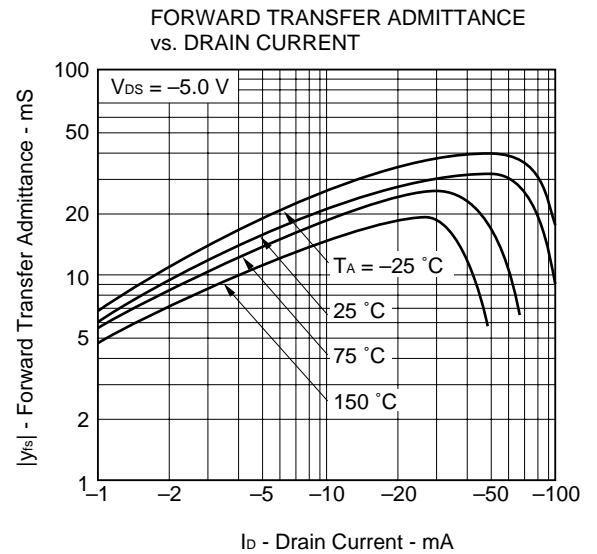
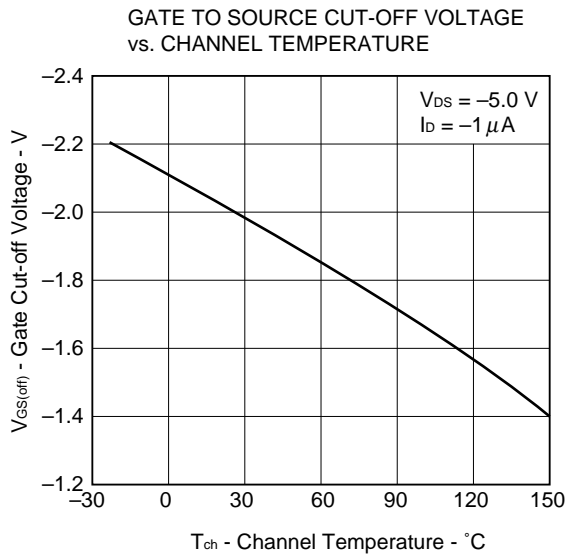
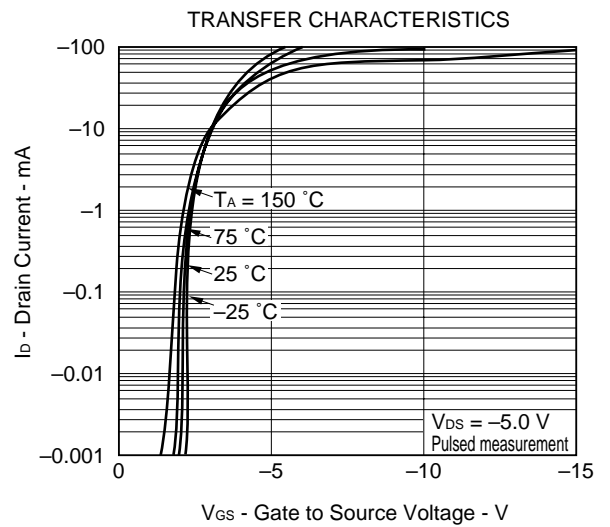
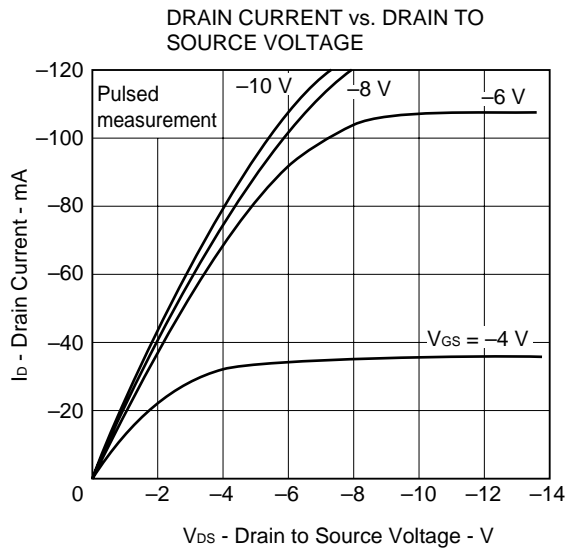
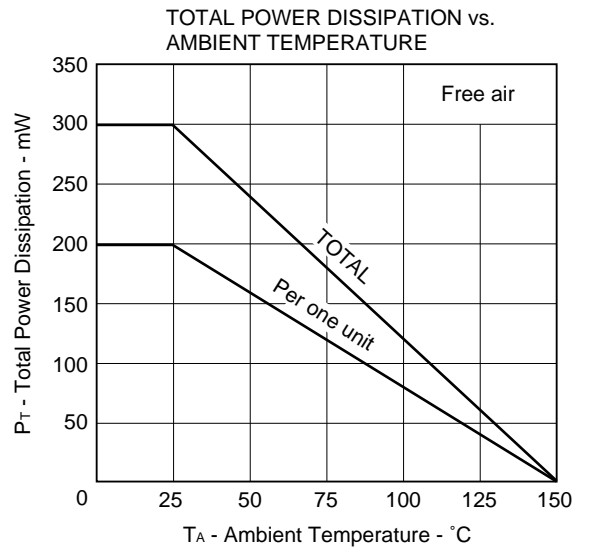
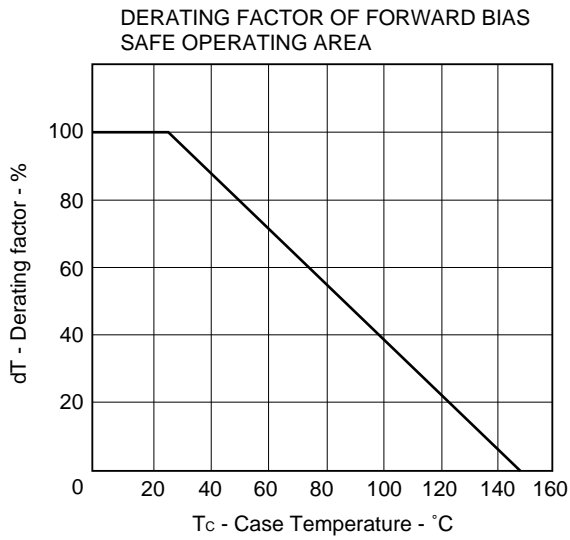
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Drain Cut-off Current	I _{DSS}	V _{DS} = -50 V, V _{GS} = 0			-1.0	μA
Gate Leakage Current	I _{GSS}	V _{GS} = ±16 V, V _{DS} = 0			±10	μA
Gate Cut-off Voltage	V _{GS(off)}	V _{DS} = -5.0 V, I _D = -1.0 μA	-1.5	-1.9	-2.5	V
Forward Transfer Admittance	y _{fs}	V _{DS} = -5.0 V, I _D = -10 mA	15			mS
Drain to Source On-State Resistance	R _{DS(on)1}	V _{GS} = -4.0 V, I _D = -10 mA		60	100	Ω
Drain to Source On-State Resistance	R _{DS(on)2}	V _{GS} = -10 V, I _D = -10 mA		40	60	Ω
Input Capacitance	C _{iss}	V _{DS} = -5.0 V, V _{GS} = 0, f = 1.0 MHz		17		pF
Output Capacitance	C _{oss}			9		pF
Reverse Transfer Capacitance	C _{rss}			1		pF
Turn-On Delay Time	t _{d(on)}	V _{GS(on)} = -4.0 V, R _G = 10 Ω V _{DD} = -5.0 V, I _D = -10 mA R _L = 500 Ω		45		ns
Rise Time	t _r			75		ns
Turn-Off Delay Time	t _{d(off)}			25		ns
Fall Time	t _f			80		ns

Marking: CA

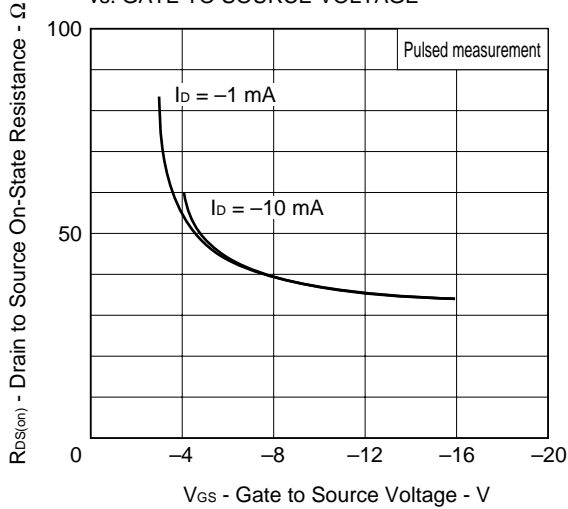
SWITCHING TIME MEASUREMENT CIRCUIT AND MEASUREMENT CONDITIONS (RESISTANCE LOADED)



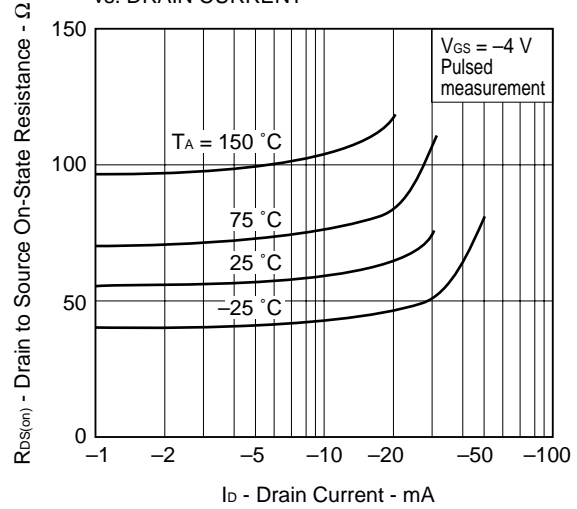
TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)



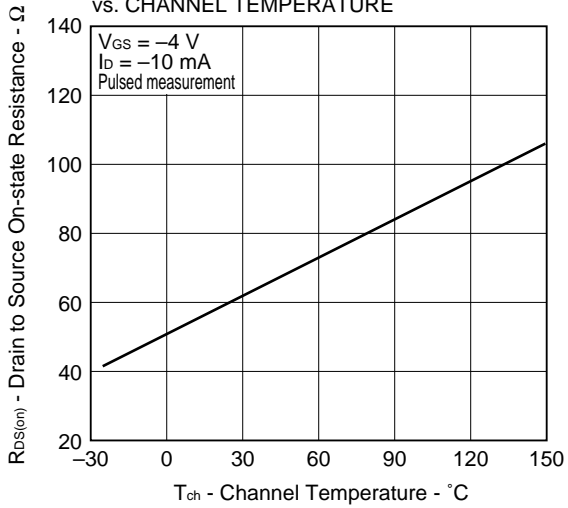
DRAIN TO SOURCE ON-STATE RESISTANCE vs. GATE TO SOURCE VOLTAGE



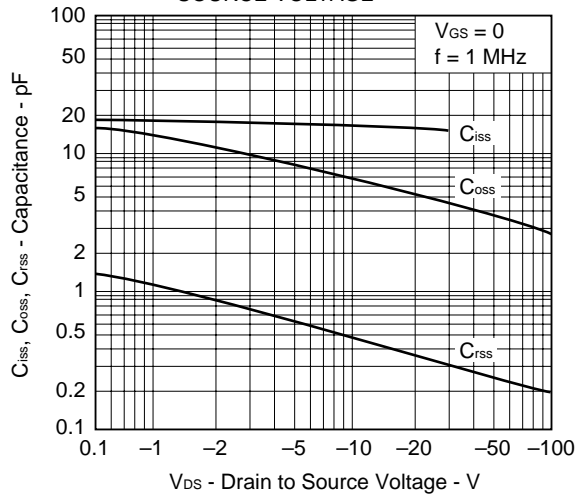
DRAIN TO SOURCE ON-STATE RESISTANCE vs. DRAIN CURRENT



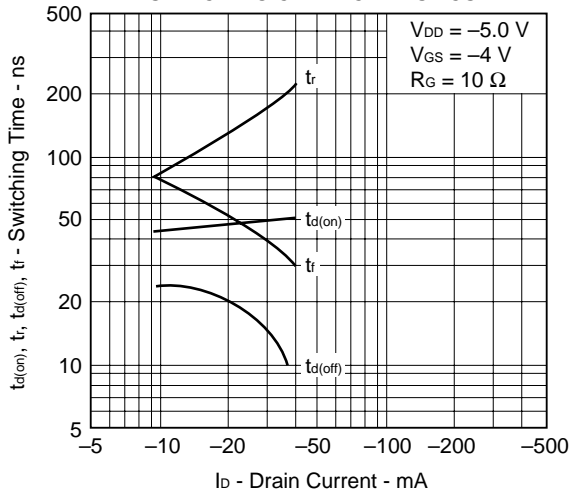
DRAIN TO SOURCE ON-STATE RESISTANCE vs. CHANNEL TEMPERATURE



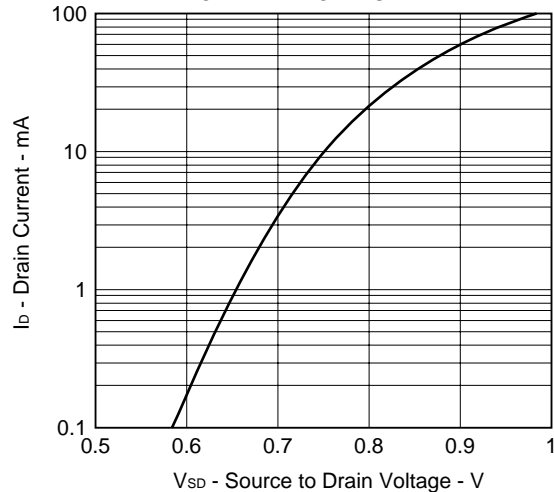
CAPACITANCE vs. DRAIN TO SOURCE VOLTAGE



SWITCHING CHARACTERISTICS



SOURCE TO DRAIN DIODE FORWARD VOLTAGE



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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Anti-radioactive design is not implemented in this product.