

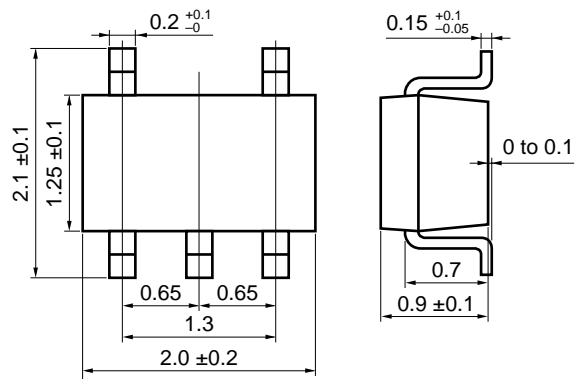
P-CHANNEL MOS FET (5-PIN 2 CIRCUITS)
FOR SWITCHING

The μ PA573T is a super-mini-mold device provided with two MOS FET circuits. It achieves high-density mounting and saves mounting costs.

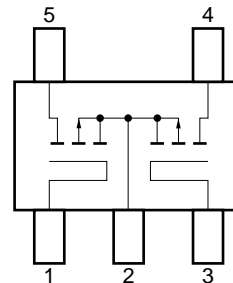
FEATURES

- Two source common MOS FET circuits in package the same size as SC-70
- Directly driven by ICs having a 3 V power supply
- Automatic mounting supported

PACKAGE DIMENSIONS (in millimeters)



EQUIVALENT CIRCUIT



- PIN CONNECTION**
1. Gate 1 (G1)
 2. Source (common)
 3. Gate 2 (G2)
 4. Drain 2 (D2)
 5. Drain 1 (D1)
- Marking: CB

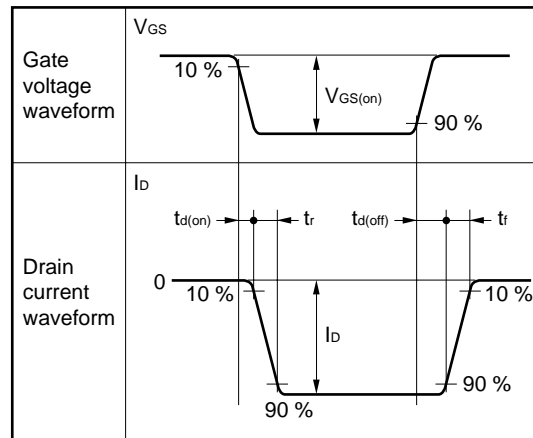
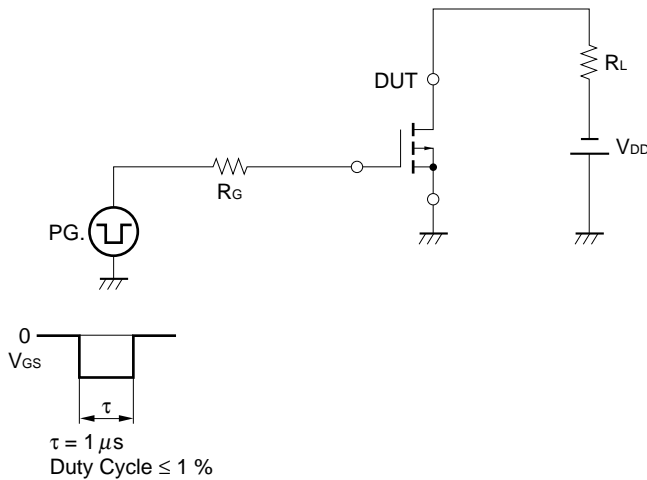
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	RATINGS	UNIT
Drain to Source Voltage	V_{DSS}	$V_{GS} = 0$	-30	V
Gate to Source Voltage	V_{GSS}	$V_{DS} = 0$	∓ 7	V
Drain Current (DC)	$I_{D(DC)}$		∓ 100	mA
Drain Current (pulse)	$I_{D(pulse)}$	$PW \leq 10$ ms, Duty Cycle ≤ 50 %	∓ 200	mA
Total Power Dissipation	P_T		200 (Total)	mW
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Operating Temperature	T_{opt}		-55 to +80	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

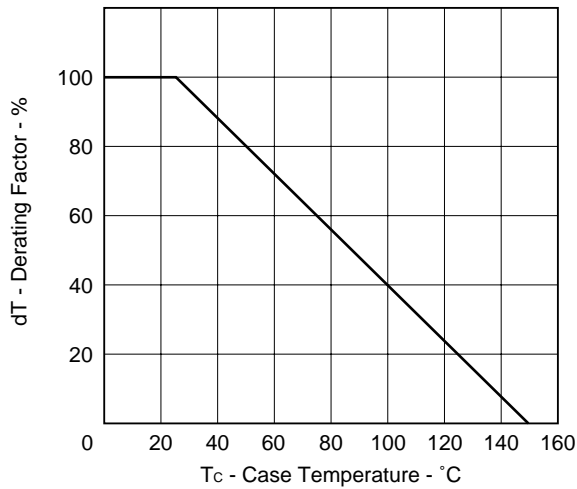
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Drain Cut-off Current	I _{DSS}	V _{DS} = -30 V, V _{GS} = 0			-1.0	μA
Gate Leakage Current	I _{GSS}	V _{GS} = ±5 V, V _{DS} = 0			±3.0	μA
Gate Cut-off Voltage	V _{GS(off)}	V _{DS} = -3 V, I _D = -10 μA	-1.6	-1.9	-2.3	V
Forward Transfer Admittance	y _{fs}	V _{DS} = -3 V, I _D = -10 mA	20	30		S
Drain to Source On-State Resistance	R _{DS(on)1}	V _{GS} = -2.5 V, I _D = -1 mA		55	100	Ω
Drain to Source On-State Resistance	R _{DS(on)2}	V _{GS} = -4.0 V, I _D = -10 mA		20	25	Ω
Input Capacitance	C _{iss}	V _{DS} = -5.0 V, V _{GS} = 0, f = 1 MHz		16		pF
Output Capacitance	C _{oss}			13		pF
Reverse Transfer Capacitance	C _{rss}			2		pF
Turn-On Delay Time	t _{d(on)}	V _{DD} = -5 V, I _D = -10 mA, V _{GS(on)} = -5 V, R _G = 10 Ω, R _L = 500 Ω		10		ns
Rise Time	t _r			40		ns
Turn-Off Delay Time	t _{d(off)}			130		ns
Fall Time	t _f			80		ns

SWITCHING TIME MEASUREMENT CIRCUIT AND CONDITIONS

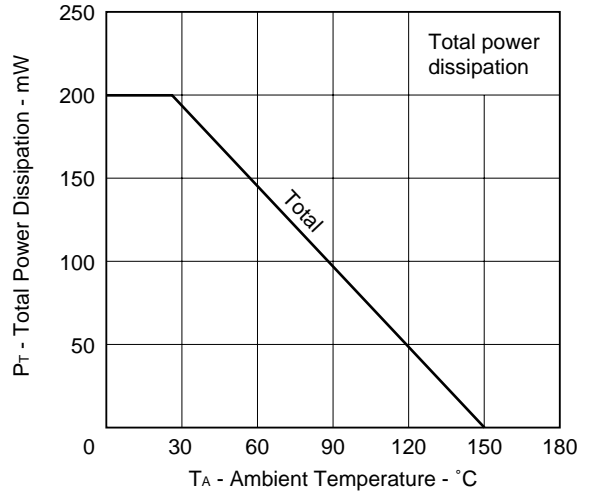


TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

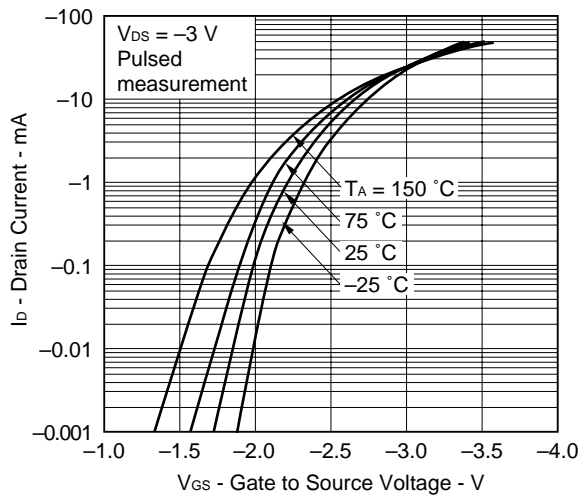
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



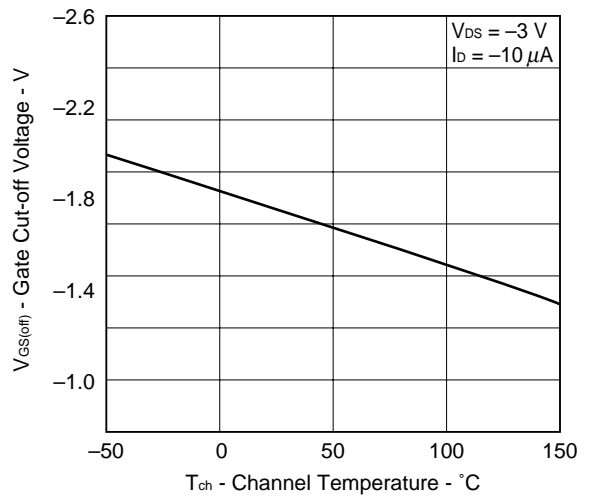
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



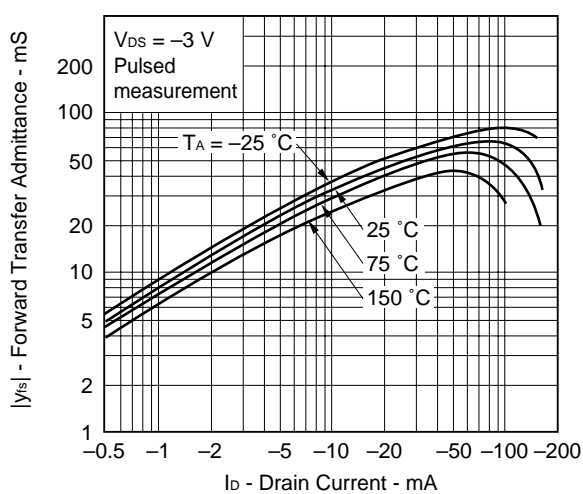
TRANSFER CHARACTERISTICS



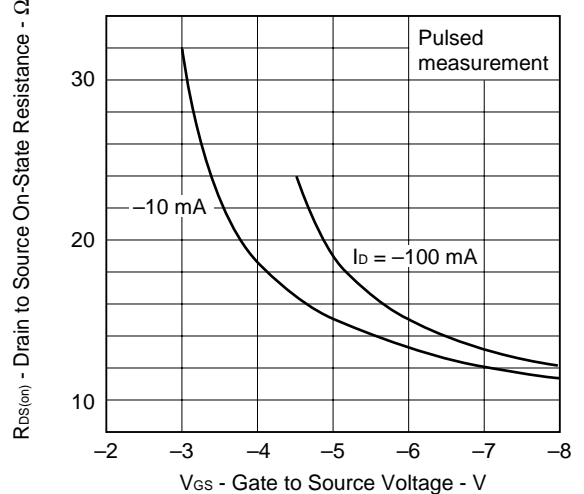
GATE TO SOURCE CUTOFF VOLTAGE vs. CHANNEL TEMPERATURE

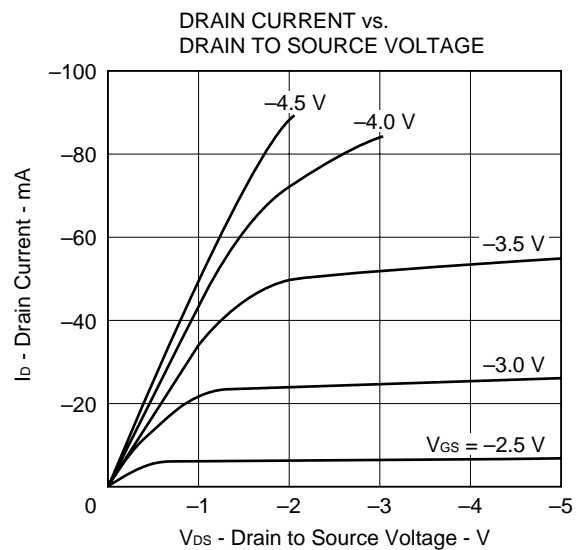
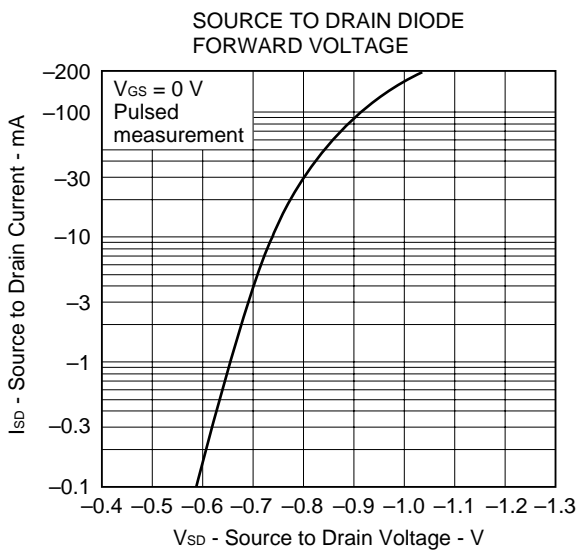
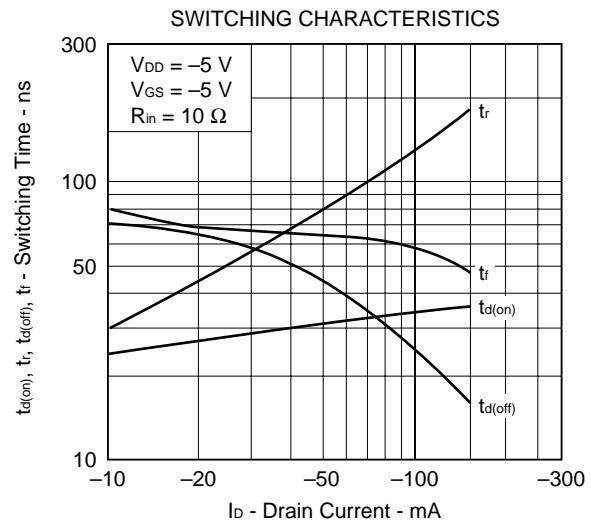
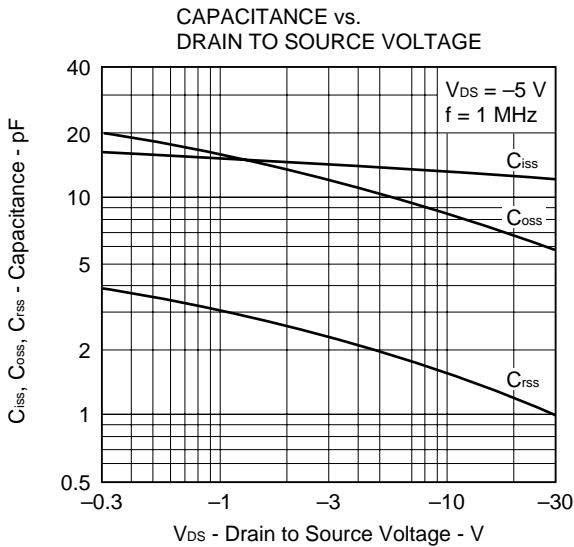
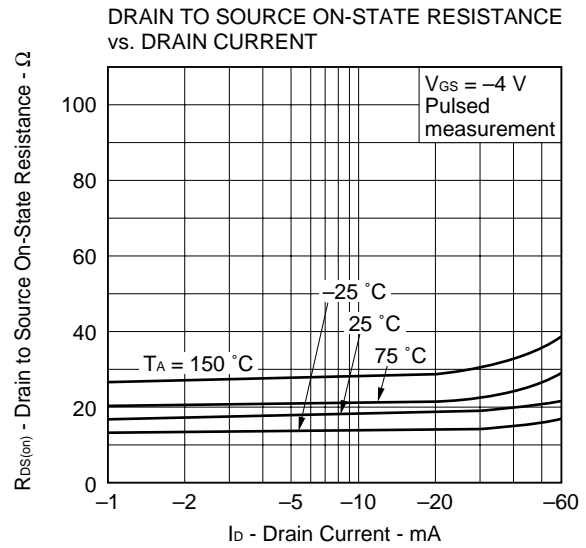
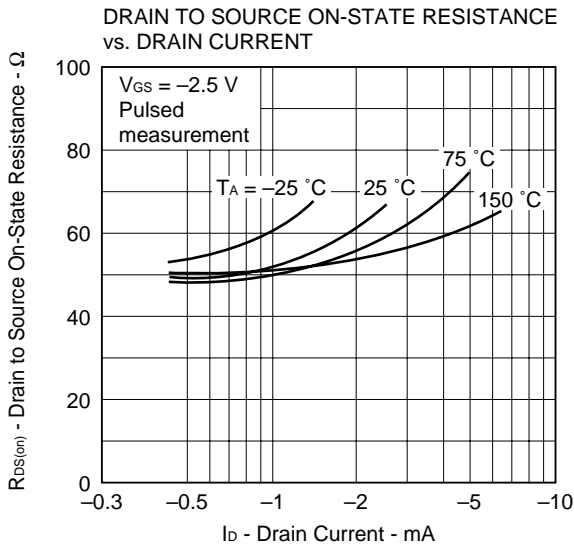


FORWARD TRANSFER ADMITTANCE vs. DRAIN CURRENT



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