

# MOS FET WITH SCHOTTKY BARRIER DIODE

# $\mu$ PA507TE

## P-CHANNEL MOS FET WITH SCHOTTKY BARRIER DIODE FOR SWITCHING

### DESCRIPTION

The  $\mu$  PA507TE is a switching device, which can be driven directly by a 1.8 V power source.

This device incorporates a MOS FET, which features a low on-state resistance and excellent switching characteristics and a low forward voltage Schottky barrier diode, and is suitable for applications such as DC/DC converter of portable machine and so on.

### FEATURES

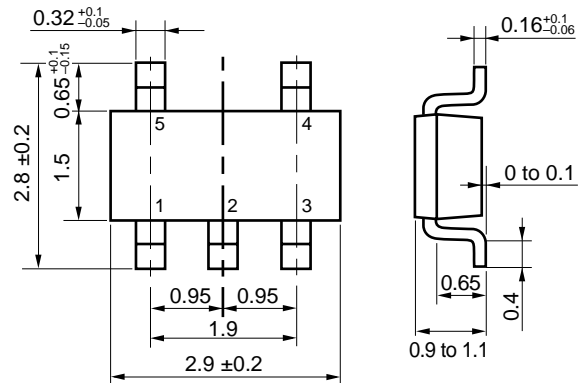
- 1.8 V drive available (MOS FET)
- Low on-state resistance (MOS FET)
  - $R_{DS(on)1} = 68 \text{ m}\Omega$  TYP. ( $V_{GS} = -4.5 \text{ V}$ ,  $I_D = -1.0 \text{ A}$ )
  - $R_{DS(on)2} = 84 \text{ m}\Omega$  TYP. ( $V_{GS} = -2.5 \text{ V}$ ,  $I_D = -1.0 \text{ A}$ )
  - $R_{DS(on)3} = 109 \text{ m}\Omega$  TYP. ( $V_{GS} = -1.8 \text{ V}$ ,  $I_D = -1.0 \text{ A}$ )
- Low forward voltage (Schottky barrier diode)
  - $V_F = 0.35 \text{ V}$  TYP. ( $I_F = 1.0 \text{ A}$ )

### ORDERING INFORMATION

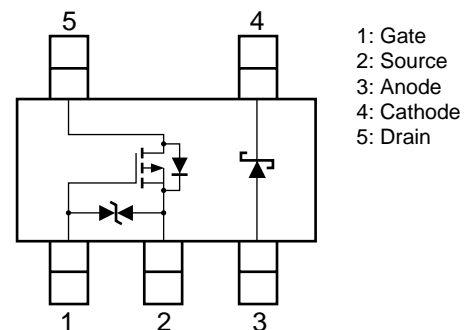
PART NUMBER	PACKAGE
$\mu$ PA507TE	SC-95_5p (Mini Mold Thin Type)

Marking: ZA

### PACKAGE DRAWING (Unit: mm)



### ★ PIN CONNECTION (Top View)



**Remark** The diode connected between the gate and source of the transistor serves as a protector against ESD. When this device actually used, an additional protection circuit is externally required if a voltage exceeding the rated voltage may be applied to this device.

**Caution** This product is electrostatic-sensitive device due to low ESD capability and should be handled with caution for electrostatic discharge.

$V_{ESD} \pm 100 \text{ V}$  TYP. ( $C = 200 \text{ pF}$ ,  $R = 0 \Omega$ , Single pulse)

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