



SPP3467

P-Channel Enhancement Mode MOSFET

DESCRIPTION

The SPP3467 is the P-Channel logic enhancement mode power field effect transistors are produced using high cell density , DMOS trench technology.

This high density process is especially tailored to minimize on-state resistance.

These devices are particularly suited for low voltage application such as cellular phone and notebook computer power management and other battery powered circuits, and low in-line power loss are needed in a very small outline surface mount package.

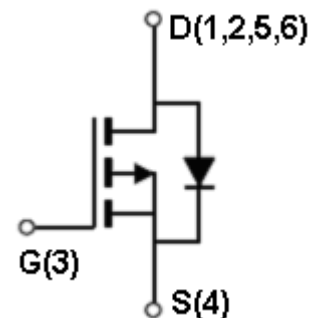
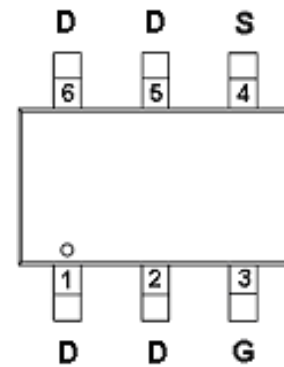
FEATURES

- ◆ -20V/-5.0A, $R_{DS(ON)}=90m\Omega@V_{GS}=-4.5V$
- ◆ -20V/-3.5A, $R_{DS(ON)}=110m\Omega@V_{GS}=-2.5V$
- ◆ -20V/-1.7A, $R_{DS(ON)}=140m\Omega@V_{GS}=-1.8V$
- ◆ Super high density cell design for extremely low $R_{DS(ON)}$
- ◆ Exceptional on-resistance and maximum DC current capability
- ◆ SOP-23-6P package design

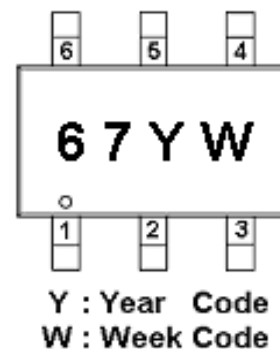
APPLICATIONS

- Power Management in Note book
- Portable Equipment
- Battery Powered System
- DC/DC Converter
- Load Switch
- DSC
- LCD Display inverter

PIN CONFIGURATION(SOT-23-6P)



PART MARKING





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PIN DESCRIPTION

| Pin | Symbol | Description |
|-----|--------|-------------|
| 1 | D | Drain |
| 2 | D | Drain |
| 3 | G | Gate |
| 4 | S | Source |
| 5 | D | Drain |
| 6 | D | Drain |

ORDERING INFORMATION

| Part Number | Package | Part Marking |
|---------------|-----------|--------------|
| SPP3467S26RGB | SOT-23-6P | 67YW |

※ Week Code : A ~ Z (1 ~ 26) ; a ~ z (27 ~ 52)

※ SPP3467S26RGB : Tape Reel ; Pb – Free ; Halogen - Free

ABSOLUTE MAXIMUM RATINGS

(TA=25°C Unless otherwise noted)

| Parameter | Symbol | Typical | Unit |
|---|------------------|----------------------|------|
| Drain-Source Voltage | V _{DSS} | -20 | V |
| Gate –Source Voltage | V _{GSS} | ±12 | V |
| Continuous Drain Current(T _J =150°C) | I _D | T _A =25°C | -5.2 |
| | | T _A =70°C | -4.2 |
| Pulsed Drain Current | I _{DM} | -20 | A |
| Continuous Source Current(Diode Conduction) | I _S | -1.7 | A |
| Power Dissipation | P _D | T _A =25°C | 2.0 |
| | | T _A =70°C | 1.3 |
| Operating Junction Temperature | T _J | 150 | °C |
| Storage Temperature Range | T _{STG} | -55/150 | °C |
| Thermal Resistance-Junction to Ambient | R _{θJA} | 90 | °C/W |



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ELECTRICAL CHARACTERISTICS

($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

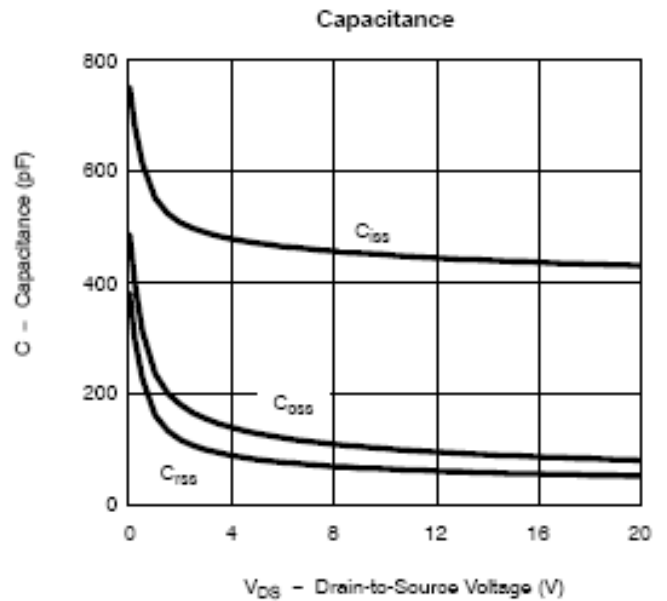
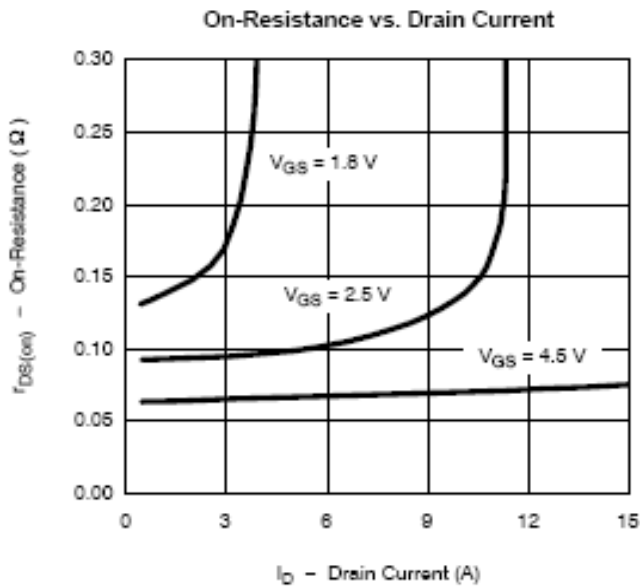
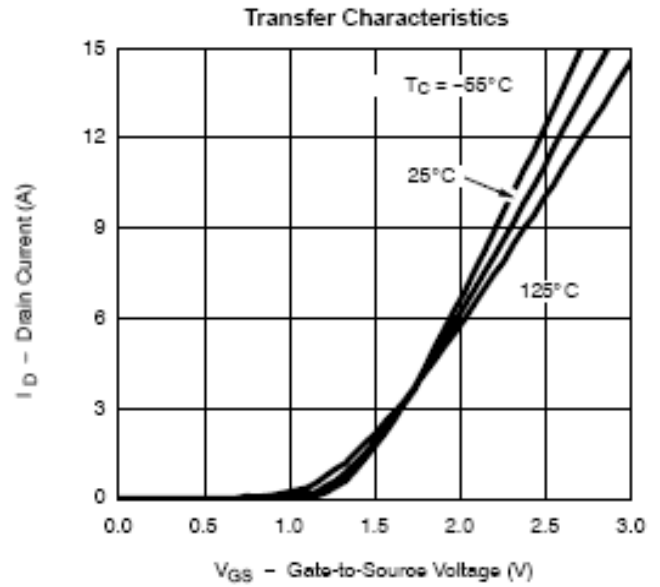
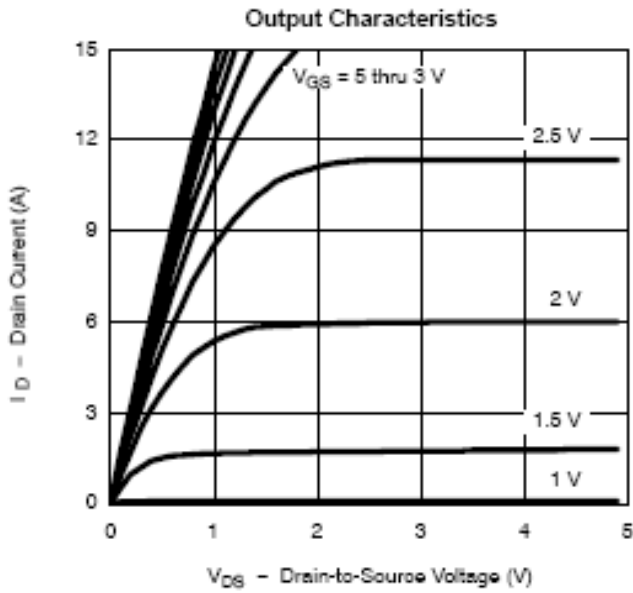
| Parameter | Symbol | Conditions | Min. | Typ | Max. | Unit |
|---------------------------------|---------------|--|-------|-------|-----------|----------|
| Static | | | | | | |
| Drain-Source Breakdown Voltage | $V_{(BR)DSS}$ | $V_{GS}=0V, I_D=-250\mu A$ | -20 | | | V |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS}, I_D=-250\mu A$ | -0.35 | | -0.8 | |
| Gate Leakage Current | I_{GSS} | $V_{DS}=0V, V_{GS}=\pm 12V$ | | | ± 100 | nA |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS}=-20V, V_{GS}=0V$ | | | -1 | uA |
| | | $V_{DS}=-20V, V_{GS}=0V$ $T_J=55^{\circ}\text{C}$ | | | -5 | |
| On-State Drain Current | $I_{D(on)}$ | $V_{DS}\leq -5V, V_{GS}=-4.5V$ | -6 | | | A |
| Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}=-4.5V, I_D=-5.0A$ | | 0.075 | 0.090 | Ω |
| | | $V_{GS}=-2.5V, I_D=-3.5A$ | | 0.090 | 0.110 | |
| | | $V_{GS}=-1.8V, I_D=-1.7A$ | | 0.120 | 0.140 | |
| Forward Transconductance | g_{fs} | $V_{DS}=-5V, I_D=-2.8A$ | | 6 | | S |
| Diode Forward Voltage | V_{SD} | $I_S=-1.5A, V_{GS}=0V$ | | -0.8 | -1.2 | V |
| Dynamic | | | | | | |
| Total Gate Charge | Q_g | $V_{DS}=-6V, V_{GS}=-4.5V$ $I_D=-2.8A$ | | 4.8 | 8 | nC |
| Gate-Source Charge | Q_{gs} | | | 1.0 | | |
| Gate-Drain Charge | Q_{gd} | | | 1.0 | | |
| Input Capacitance | C_{iss} | $V_{DS}=-6V, V_{GS}=0V$ $f=1\text{MHz}$ | | 485 | | pF |
| Output Capacitance | C_{oss} | | | 85 | | |
| Reverse Transfer Capacitance | C_{rss} | | | 40 | | |
| Turn-On Time | $t_{d(on)}$ | $V_{DD}=-6V, R_L=6\Omega$ $I_D=-1.0A, V_{GEN}=-4.5V$ $R_G=6\Omega$ | | 10 | 16 | ns |
| | t_r | | | 13 | 23 | |
| Turn-Off Time | $t_{d(off)}$ | | | 18 | 25 | |
| | t_f | | | 15 | 20 | |



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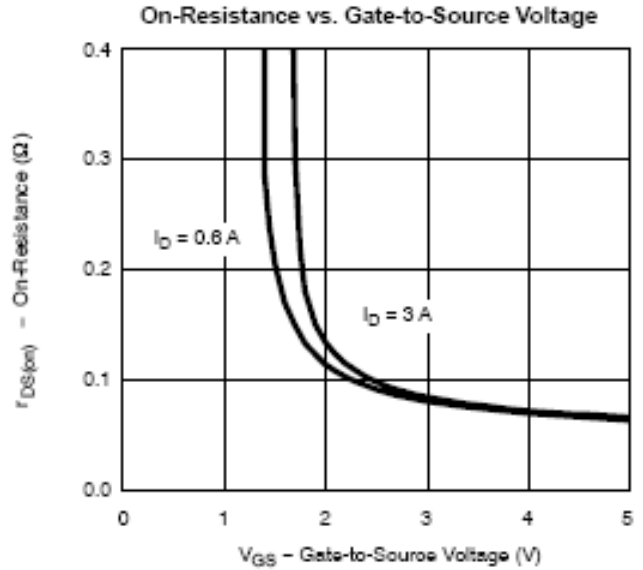
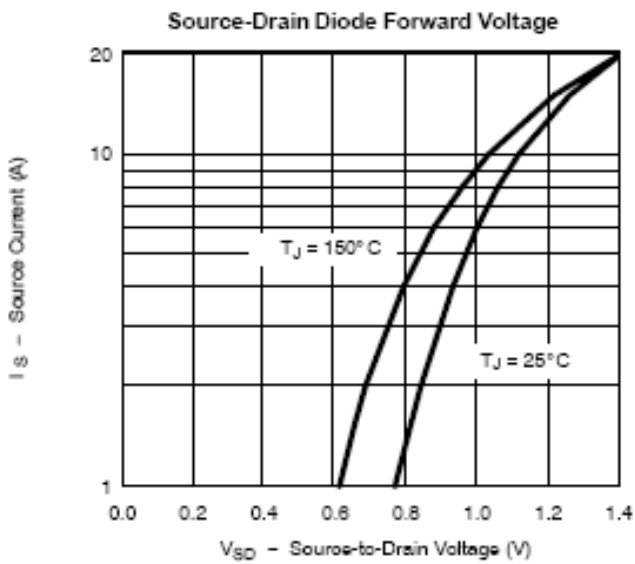
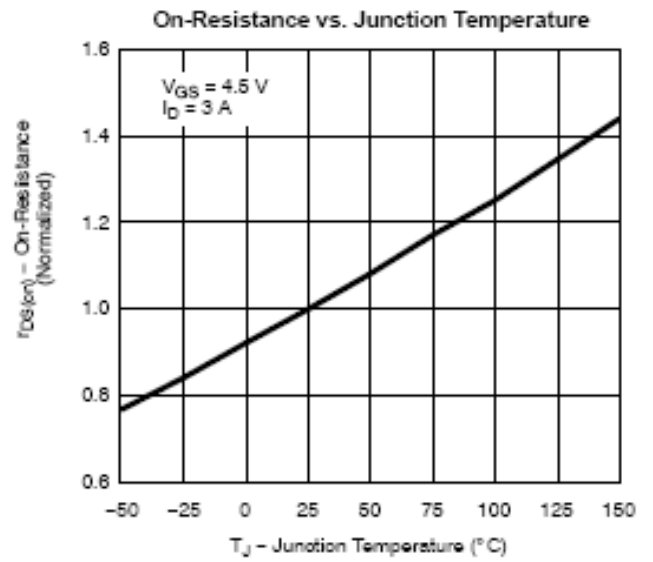
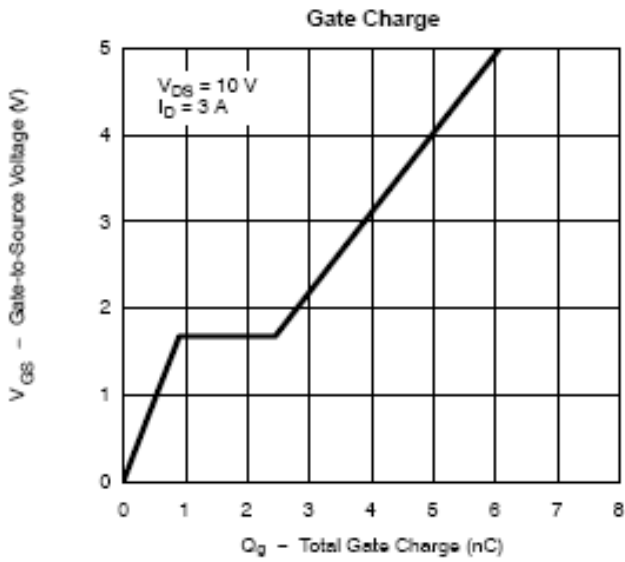
TYPICAL CHARACTERISTICS





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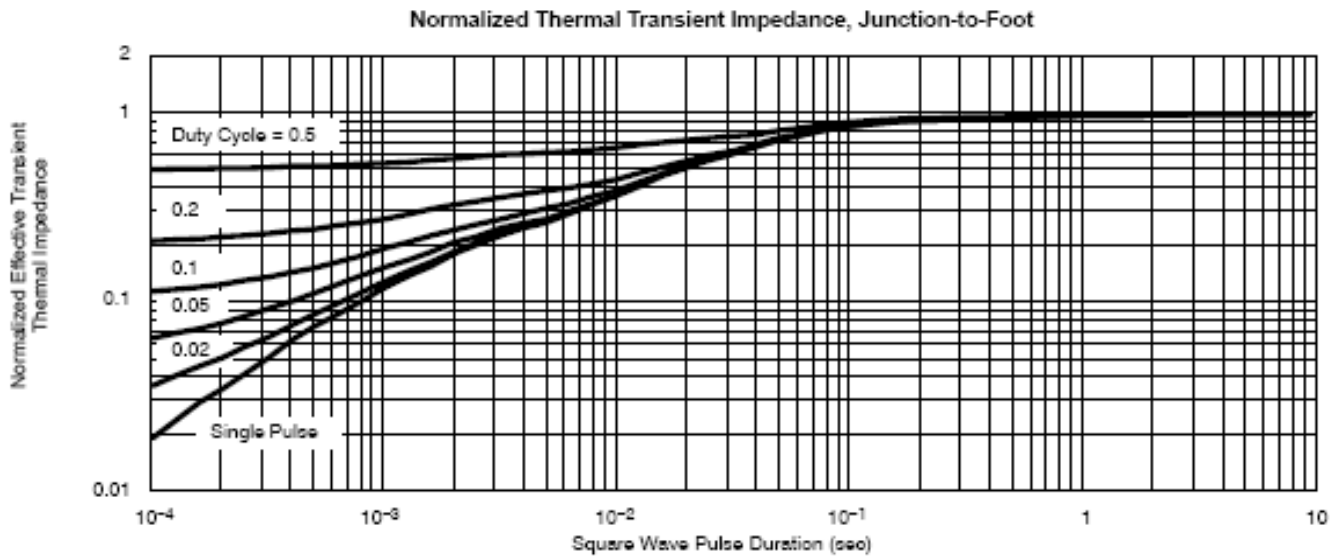
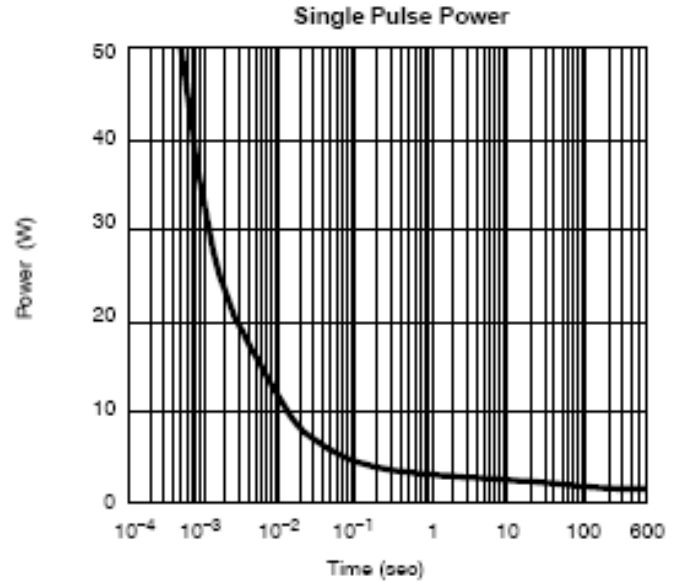
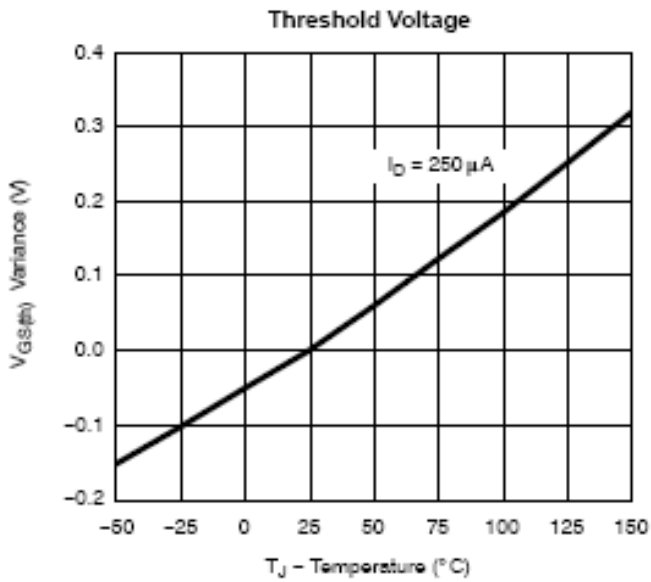
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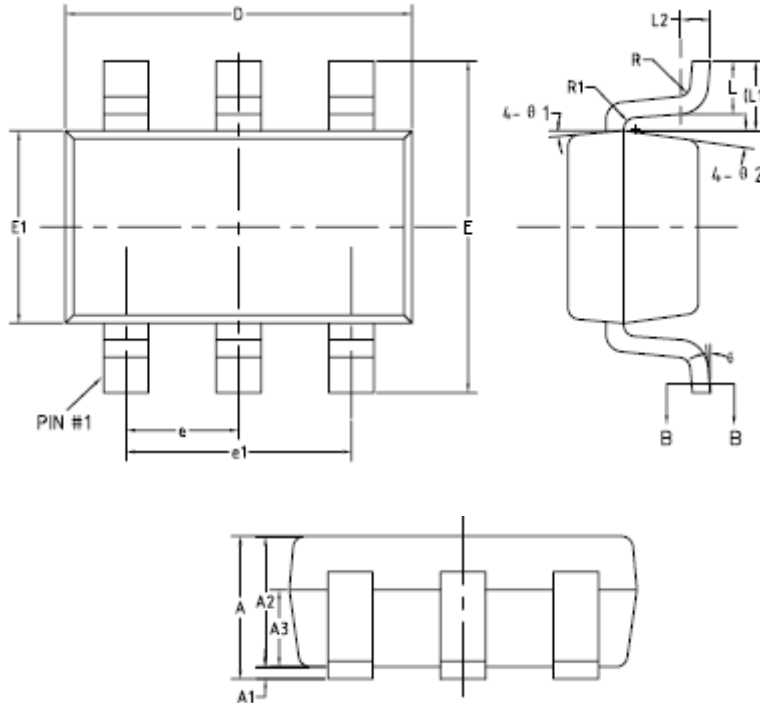




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SOT-23- 6P PACKAGE OUTLINE



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

| SYMBOL | MIN | NOM | MAX |
|--------|---------|------|------|
| A | — | — | 1.45 |
| A1 | 0 | — | 0.15 |
| A2 | 0.90 | 1.10 | 1.30 |
| A3 | 0.60 | 0.65 | 0.70 |
| b | 0.39 | — | 0.49 |
| b1 | 0.38 | 0.40 | 0.45 |
| c | 0.12 | — | 0.19 |
| c1 | 0.11 | 0.13 | 0.15 |
| D | 2.85 | 2.95 | 3.05 |
| E | 2.60 | 2.80 | 3.00 |
| E1 | 1.55 | 1.65 | 1.75 |
| e | 0.85 | 0.95 | 1.05 |
| e1 | 1.80 | 1.90 | 2.00 |
| L | 0.35 | 0.45 | 0.60 |
| L1 | 0.59REF | | |
| L2 | 0.25BSC | | |
| R | 0.05 | — | — |
| R1 | 0.05 | — | 0.20 |
| θ | 0° | — | 8° |
| θ 1 | 8° | 10° | 12° |
| θ 2 | 8° | 10° | 12° |



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