

### 1.Features

- ◆ 30V MOSFET technology
- ◆ Low on-state resistance
- ◆ Fast switching
- ◆  $V_{GS} \pm 20V$

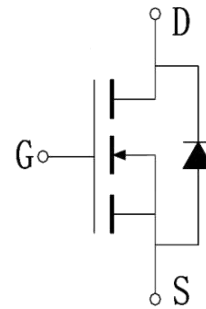
|          |                      |       |
|----------|----------------------|-------|
| $V_{DS}$ | $R_{DS(on)}$ Typ.    | $I_D$ |
| 30V      | 4.8m $\Omega$ @ 10V  | 18A   |
|          | 8.5m $\Omega$ @ 4.5V |       |

### 2.Applications

- ◆ Power Switching Application
- ◆ Load Switching



SOP8  
Pin Description



Schematic Diagram

### 3. Order Information

| Part Number | Grade | $V_{DSS}$ | $V_{GSS}$ | $V_{GS(th)}$ | $I_D$ | $R_{DS(on)}$  |
|-------------|-------|-----------|-----------|--------------|-------|---------------|
| TCS1318_SH  | A     | 30V       | $\pm 20V$ | 1.5V         | 18A   | 4.8m $\Omega$ |
| TCS1318_SH  | B     | 30V       | $\pm 20V$ | 1.5V         | 18A   | 5.8m $\Omega$ |

### 4.Absolute Max Ratings at $T_a=25^\circ C$ (Note1)

| Parameter                                 | Symbol    | Maximum     | Units      |
|---|-----------|-------------|------------|
| Drain to Source Voltage                   | $V_{DSS}$ | 30          | V          |
| Gate to Source Voltage                    | $V_{GSS}$ | $\pm 20$    | V          |
| Drain Current (DC)                        | $I_D$     | 18          | A          |
| Drain Current (Pulse), $PW \leq 300\mu s$ | $I_{DP}$  | 48          | A          |
| Total Dissipation                         | $P_D$     | 3           | W          |
| Avalanche Energy, Single Pulsed           | $E_{AS}$  | 135         | mJ         |
| Junction Temperature                      | $T_j$     | 150         | $^\circ C$ |
| Storage Temperature                       | $T_{stg}$ | -55 to +150 | $^\circ C$ |

Note 1: Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.