

Power Mosfet (P-Type 40V)

Features

Advanced trench cell design

High speed switch

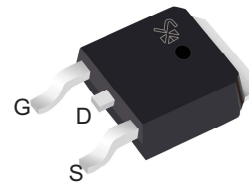
$BV \geq -40\text{ V}$

$R_{DS(ON)} \leq 15\text{ m}\Omega @ V_{GS} = -10\text{ V}$

$R_{DS(ON)} \leq 21\text{ m}\Omega @ V_{GS} = -4.5\text{ V}$

| | | |
|------------|-------------------|-------|
| BV_{DSS} | $R_{DS(ON),typ.}$ | I_D |
| 40V | 12m Ω | 22A |

TO-252(D-PAK)

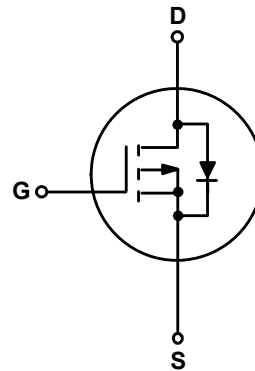


Applications

Portable appliances

Battery management

Symbol



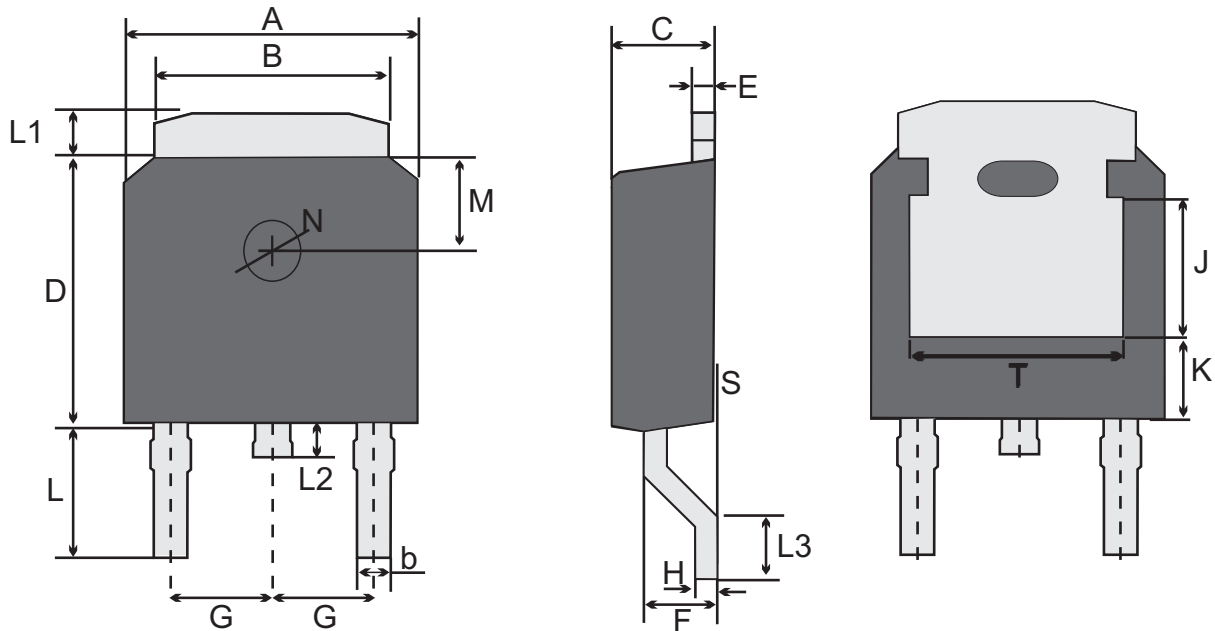
● Limiting Values

| Symbol | Parameter | Rating | Unit |
|------------------|---|------------|--------------------|
| V_{DSS} | Drain-Source Voltage | - 40 | V |
| V_{GSS} | Gate-Source Voltage | ± 20 | |
| I_D | Continuous Drain Current | 22 | A |
| $T_J \& T_{STG}$ | Operating and Storage Temperature Range | -55 to 150 | $^{\circ}\text{C}$ |

● Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|------------------------|--------------------------------|---|------|------|-----------|---------------|
| Static Characteristics | | | | | | |
| BV_{DSS} | Drain-Source Breakdown Voltage | $V_{GS} = 0\text{ V}, I_{DS} = -250\ \mu\text{A}$ | -40 | - | - | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS} = V_{GS}, I_{DS} = -250\ \mu\text{A}$ | -1.0 | -1.5 | -2.0 | V |
| I_{DSS} | Drain Leakage Current | $V_{DS} = -32\text{ V}, V_{GS} = 0\text{ V}$ | - | - | -1 | μA |
| | | $T_J = 85\text{ }^\circ\text{C}$ | - | - | -30 | μA |
| I_{GSS} | Gate Leakage Current | $V_{GS} = \pm 20\text{ V}, V_{DS} = 0\text{ V}$ | - | - | ± 100 | nA |
| $R_{DS(ON)}^a$ | On-State Resistance | $V_{GS} = -10\text{ V}, I_{DS} = -1\text{ A}$ | - | 12 | 15 | m Ω |
| | | $V_{GS} = -4.5\text{ V}, I_{DS} = -1\text{ A}$ | - | 16 | 21 | |
| Diode Characteristics | | | | | | |
| V_{SD} | Diode Forward Voltage | $I_{SD} = -0.5\text{ A}, V_{GS} = 0\text{ V}$ | - | -0.7 | -1.3 | V |

TO-252(D-PAK) Package Outline Dimensions



TO-252W(D-PAK) mechanical data

| UNIT | A | B | b | C | D | E | F | G | H | L | L1 | L2 | L3 | S | M | N | J | K | T | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|------|-----|-----|-----|------|----------------|----------------|--------------|--------------|--------------|------|
| mm | max | 6.7 | 5.5 | 0.8 | 2.5 | 6.3 | 0.6 | 1.8 | 2.29 TYPICAL | 0.55 | 3.1 | 1.2 | 1.0 | 1.75 | 1.8 TYPICAL | 1.3 TYPICAL | 3.16 ref. | 1.80 ref. | 4.83 ref. | |
| | typ | 6.6 | 5.3 | 0.7 | 2.3 | 6.1 | 0.5 | 1.5 | | 0.50 | 2.8 | 1.0 | 0.8 | 1.30 | | | | | | 0.15 |
| | min | 6.3 | 5.1 | 0.3 | 2.1 | 5.9 | 0.4 | 1.3 | | 0.45 | 2.7 | 0.8 | 0.6 | 1.00 | | | | | | 0.0 |
| mil | max | 264 | 217 | 31 | 98 | 248 | 24 | 71 | 90 TYPICAL | 22 | 122 | 47 | 39 | 69 | 71 TYPICAL | 51 TYPICAL | 124 ref. | 71 ref. | 190 ref. | |
| | typ | 260 | 209 | 28 | 90 | 240 | 20 | 59 | | 20 | 110 | 39 | 31 | 51 | | | | | | 6 |
| | min | 248 | 201 | 12 | 83 | 232 | 16 | 51 | | 18 | 106 | 31 | 24 | 55 | | | | | | 0 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)