# JMSH1552PK

## Features

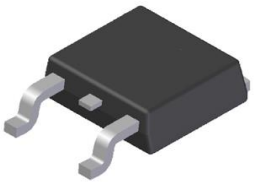
- Excellent $R_{DS(ON)}$ and Low Gate Charge
- 100% UIS Tested
- 100% Vds Tested
- Halogen-free; RoHS-compliant

## Applications

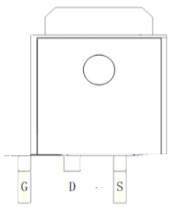
- Load Switch
- PWM Application
- Power Management

## Product Summary

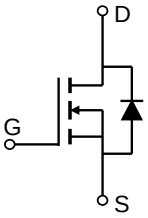
| Parameters | Value | Unit |
|---|---|---|
| $V_{DSS}$ | 150 | V |
| $V_{GS(th)_Typ}$ | 3.3 | V |
| $I_D$(@$V_{GS}$=10V) | 17 | A |
| $R_{DS(ON)_Typ}$(@$V_{GS}$=10V | 48 | m : |



TO-252-3L




Pin Assignment




Schematic Diagram

## Ordering Information

| Device | Marking | MSL | Form | Package | Reel(pcs) | Per Carton (pcs) |
|---|---|---|---|---|---|---|
| JMSH1552PK-13 | SH1552P | 3 | Tape&Reel | TO-252-3L | 2500 | 25000 |

## Absolute Maximum Ratings (@ $T_C$ = 25°C unless otherwise specified)

| Symbol | Parameter | | Value | Unit |
|---|---|---|---|---|
| $V_{DS}$ | Drain-to-Source Voltage | | 150 | V |
| $V_{GS}$ | Gate-to-Source Voltage | | ±20 | V |
| $I_D$ | Continuous Drain Current | $T_C$ = 25°C | 17 | A |
| | | $T_C$ = 100°C | 11 | |
| $I_{DM}$ | Pulsed Drain Current [1] | | Refer to Fig.4 | A |
| $E_{AS}$ | Single Pulsed Avalanche Energy [2] | | 60 | mJ |
| $P_D$ | Power Dissipation | $T_C$ = 25°C | 40 | W |
| | | $T_C$ = 100°C | 16 | |
| $T_J$, $T_{STG}$ | Junction & Storage Temperature Range | | -55 to 150 | °C |

## Thermal Characteristics

| Symbol | Parameter | Max | Unit |
|---|---|---|---|
| R | Thermal Resistance, Junction to Ambient[3] | 42 | °C/W |
| R | Thermal Resistance, Junction to Case | 3.1 | |


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## Electrical Characteristics

## Typical Performance Characteristics

## Test Circuit



**Figure 1: Gate Charge Test Circuit & Waveform**

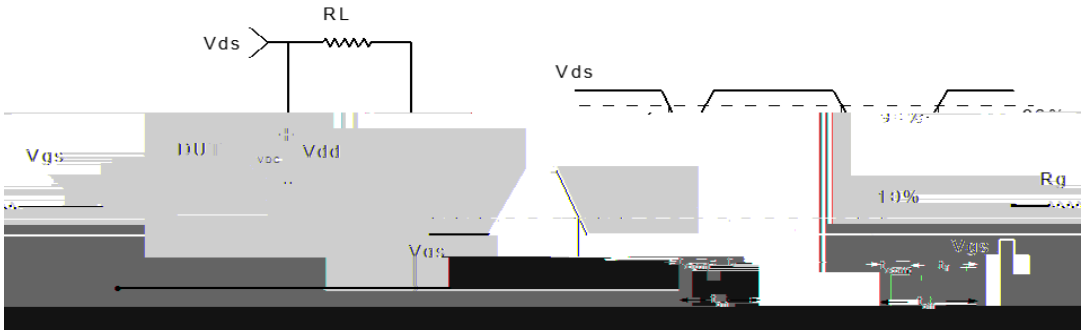



**Figure 2: Resistive Switching Test Circuit & Waveform**

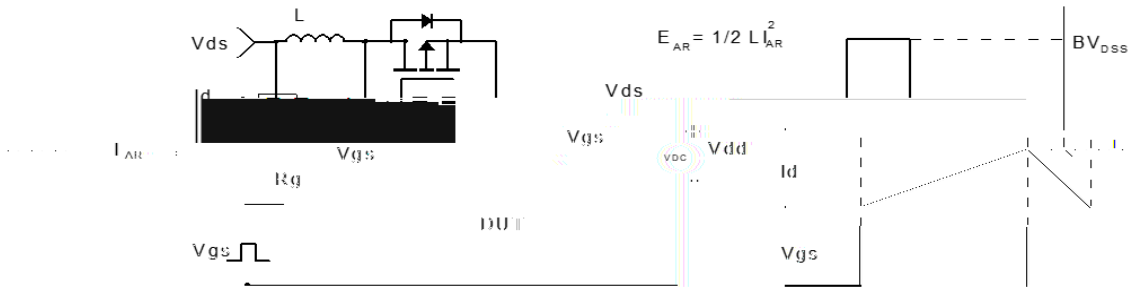



**Figure 3: Unclamped Inductive Switching Test Circuit& Waveform**

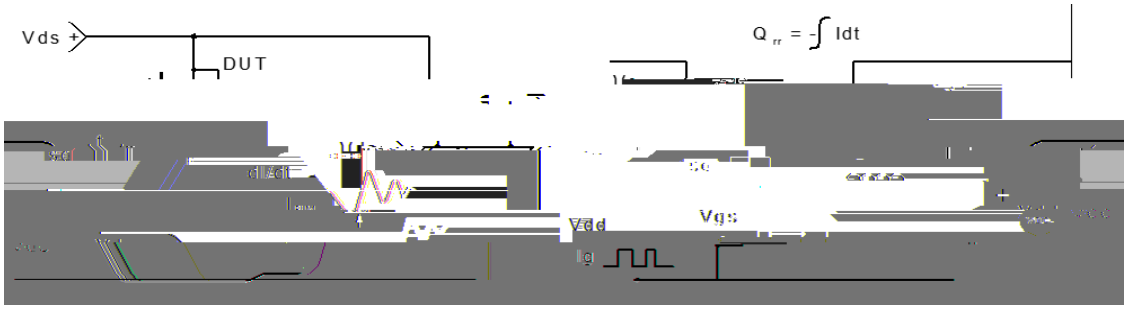
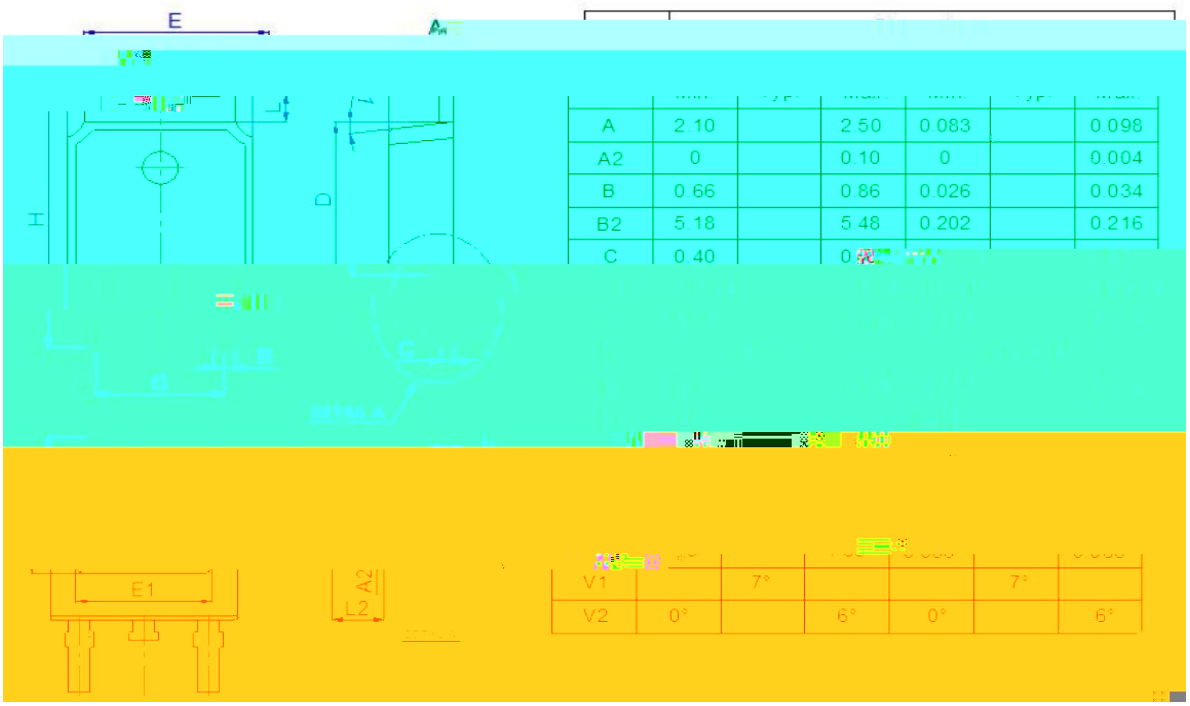



**Figure 4: Diode Recovery Test Circuit & Waveform**


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## Package Mechanical Data(TO-252-3L)




| | | | | | | |
|---|---|---|---|---|---|---|
| A | 2.10 | | 2.50 | 0.083 | | 0.098 |
| A2 | 0 | | 0.10 | 0 | | 0.004 |
| B | 0.66 | | 0.86 | 0.026 | | 0.034 |
| B2 | 5.18 | | 5.48 | 0.202 | | 0.216 |
| C | 0.40 | | 0.[illegible] | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| V1 | | 7° | | | 7° | |
| V2 | 0° | | 6° | 0° | | 6° |

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