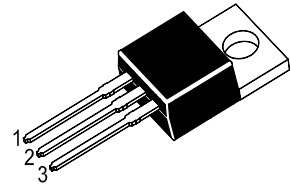


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N-Channel Enhancement Mode Field Effect Transistor

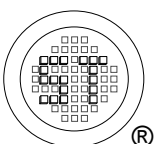


1.Base 2.Collector 3.Emitter

TO-220 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-----------------|---------------|--------------------|
| Collector Base Voltage | V_{CBO} | 600 | V |
| Collector Emitter Voltage | V_{CEO} | 600 | V |
| Emitter Base Voltage | V_{EBO} | ± 30 | V |
| Collector Current | I_C | 6 | A |
| Collector Current (Pulse) | I_{CP} | 24 | A |
| Power Dissipation ($T_c = 25^\circ\text{C}$) | P_{tot} | 45 | W |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 62.5 | $^\circ\text{C/W}$ |
| Thermal Resistance Junction to Case | $R_{\theta JC}$ | 2.77 | $^\circ\text{C/W}$ |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |



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ISO/TS 16949 : 2008
Certificate No. 160713009



ISO14001 : 2004
Certificate No. 7116



ISO 9001 : 2008
Certificate No. 50719410



BS-OHSAS 18001 : 2007
Certificate No. 7116



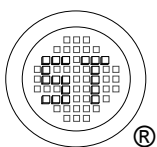
IECQ QC 080000
Certificate No. PRC-HSPM-1463-1

Dated : 04/01/2016 Rev:01

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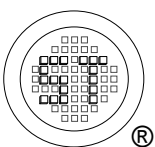
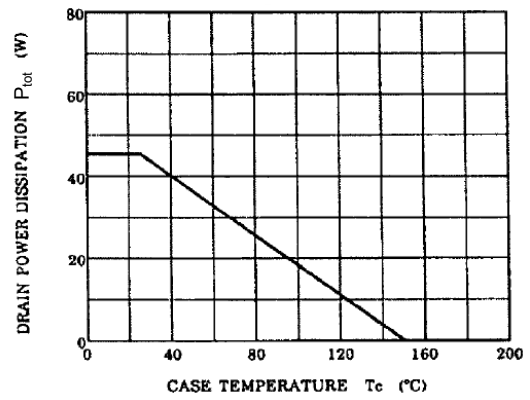
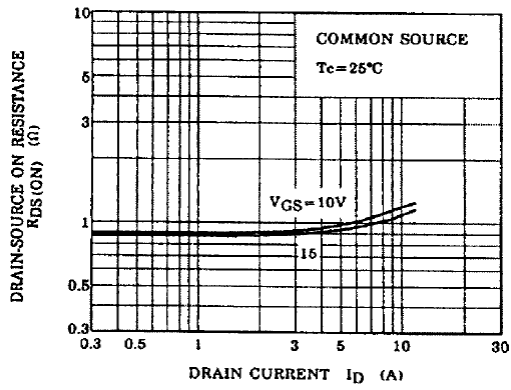
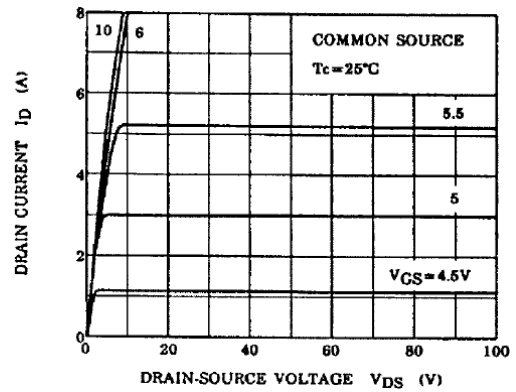
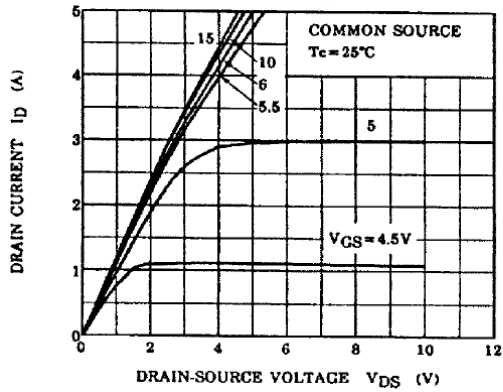
Electrical Characteristics at T_a = 25°C

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|----------------------|------|------|-------|------|
| Drain-Source Breakdown Voltage at I _D = 10 mA | V _{(BR)DSS} | 600 | - | - | V |
| Drain-Source Leakage Current at V _{DS} = 600 V | I _{DSS} | - | - | 300 | μA |
| Gate-Source Leakage Current at V _{GS} = ± 25 V | I _{GSS} | - | - | ± 100 | nA |
| Gate-Source Threshold Voltage at V _{DS} = 10 V, I _D = 1 mA | V _{GS(th)} | 1.5 | - | 3.5 | V |
| Drain-Source On-State Resistance at V _{GS} = 10 V, I _D = 3 A | R _{DS(on)} | - | - | 1.25 | Ω |
| Forward Transconductance at V _{DS} = 10 V, I _D = 3 A | g _{FS} | 3 | - | - | S |
| Input Capacitance at V _{DS} = 10 V, f = 1 MHz | C _{iss} | - | - | 2000 | pF |
| Output Capacitance at V _{DS} = 10 V, f = 1 MHz | C _{oss} | - | - | 380 | pF |
| Reverse Transfer Capacitance at V _{DS} = 10 V, f = 1 MHz | C _{rss} | - | - | 120 | pF |
| Turn-On Delay Time at V _{DD} = 300 V, V _{GS} = 10 V, I _D = 3 A, R _L = 100 Ω | t _{d(on)} | - | - | 80 | ns |
| Turn-On Rise Time at V _{DD} = 300 V, V _{GS} = 10 V, I _D = 3 A, R _L = 100 Ω | t _r | - | - | 50 | ns |
| Turn-Off Delay Time at V _{DD} = 300 V, V _{GS} = 10 V, I _D = 3 A, R _L = 100 Ω | t _{d(off)} | - | - | 170 | ns |
| Turn-Off Fall Time at V _{DD} = 300 V, V _{GS} = 10 V, I _D = 3 A, R _L = 100 Ω | t _f | - | - | 40 | ns |



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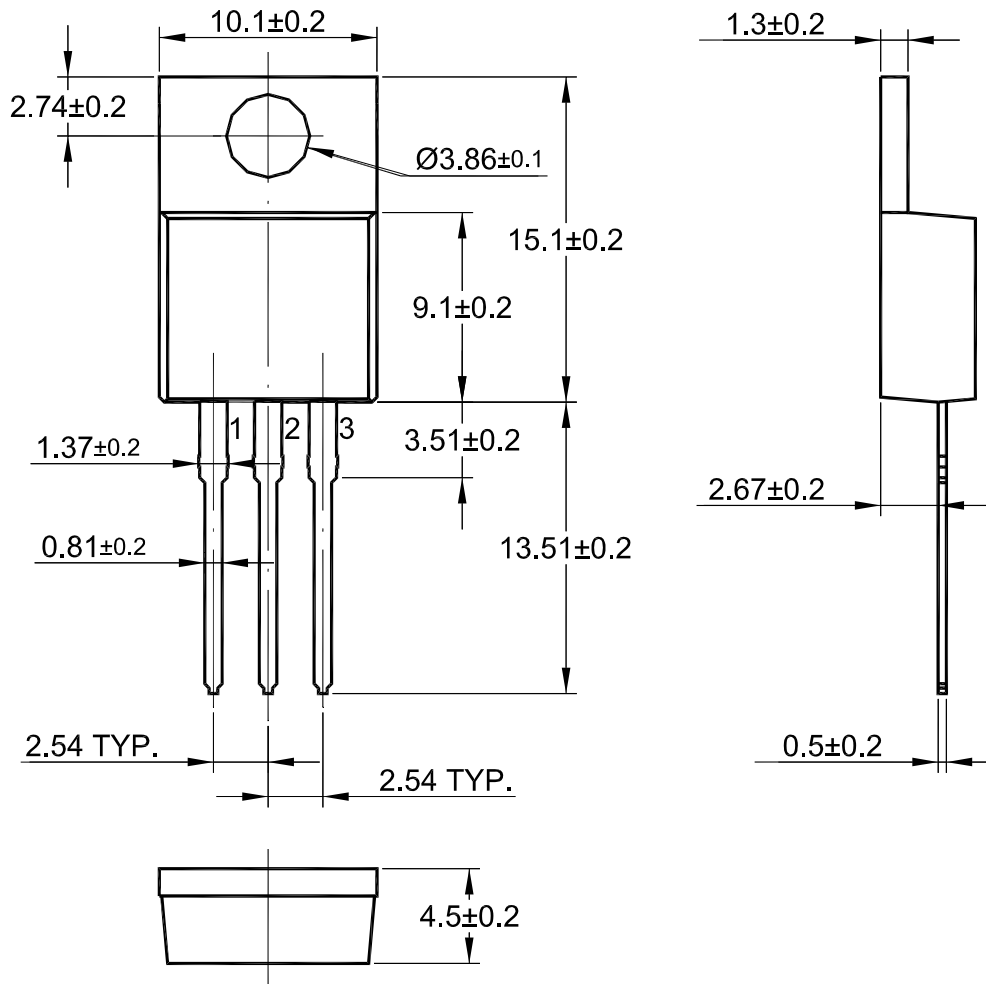


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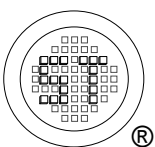


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TO-220 Package Outline



Dimensions in mm



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