

### Features

- Current- $I_{GT}$  : 200  $\mu$ A
- $I_{TRMS}$  : 0.8 A
- $V_{RRM}/V_{DRM}$  : MCR100-6: 400 V  
MCR100-8: 600 V
- Operating and storage junction temperature range  $T_J$  ,  $T_{stg}$  : -55°C to +150°C



SOT-89-3L top view



Schematic diagram



Halogen-Free

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

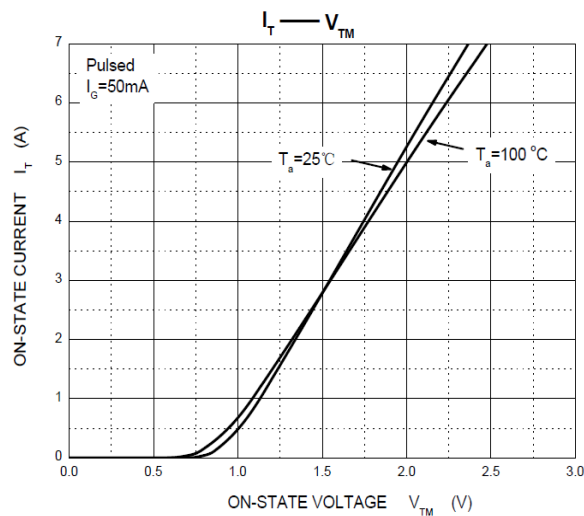
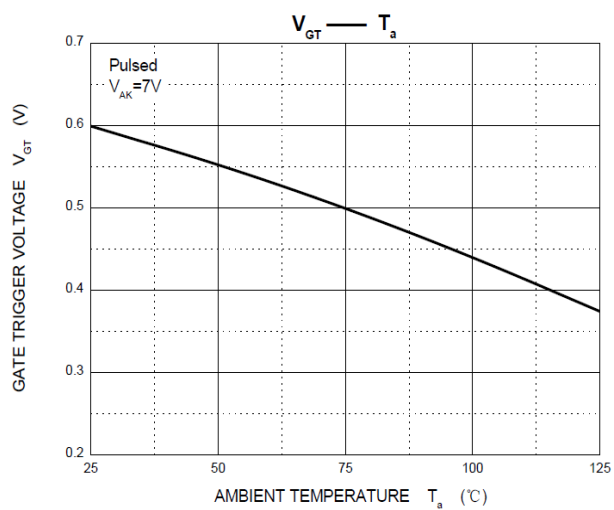
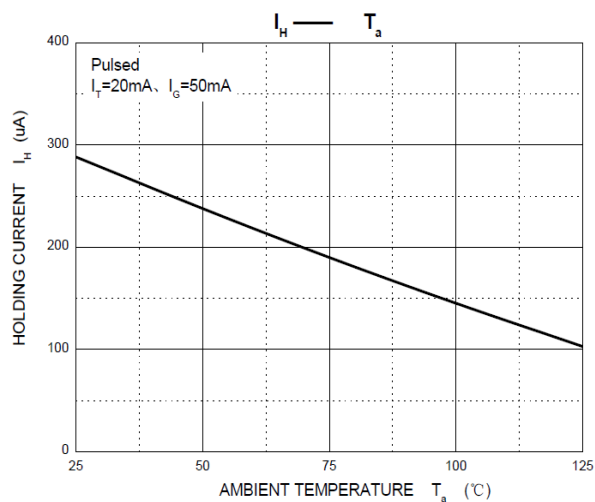
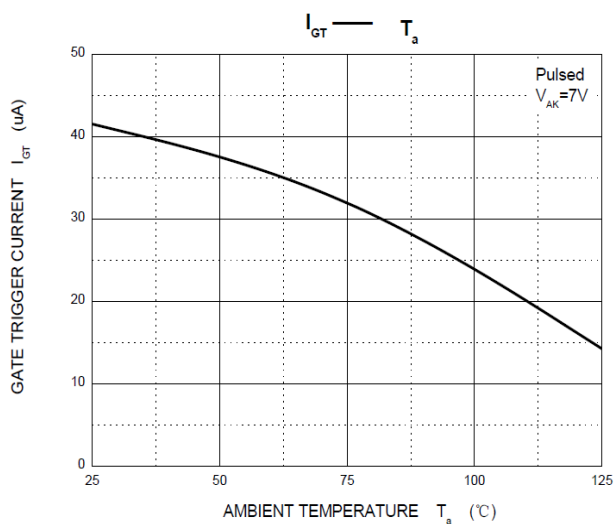
| Symbol     | Parameter                                            | Test conditions                           | Min | Max | Unit          |
|------------|------------------------------------------------------|-------------------------------------------|-----|-----|---------------|
| $V_{TM}^*$ | On state voltage                                     | $I_{TM}=1\text{A}$                        |     | 1.7 | V             |
| $V_{GT}$   | Gate trigger voltage                                 | $V_{AK}=7\text{V}$                        |     | 0.8 | V             |
| $V_{DRM}$  | Peak Repetitive forward and reverse blocking voltage | $I_{DRM}=10\mu\text{A}$                   |     |     | V             |
| $V_{AND}$  | MCR100-6                                             |                                           | 400 |     |               |
| $V_{RRM}$  | MCR100-8                                             |                                           | 600 |     |               |
| $I_{DRM}$  | Peak forward or reverse blocking Current             | $V_{AK}=\text{Rated}$                     |     | 10  | $\mu\text{A}$ |
| $I_{RRM}$  |                                                      | $V_{DRM}$ or $V_{RRM}$                    |     |     |               |
| $I_H$      | Holding current                                      | $I_{HL}=20\text{mA}$ , $V_{AK}=7\text{V}$ |     | 5   | mA            |
| $I_{GT}$   | A Gate trigger current                               | $V_{AK}=7\text{V}$                        | 30  | 80  | $\mu\text{A}$ |

\* Forward current applied for 1 ms maximum duration, duty cycle $\leq$ 1%.

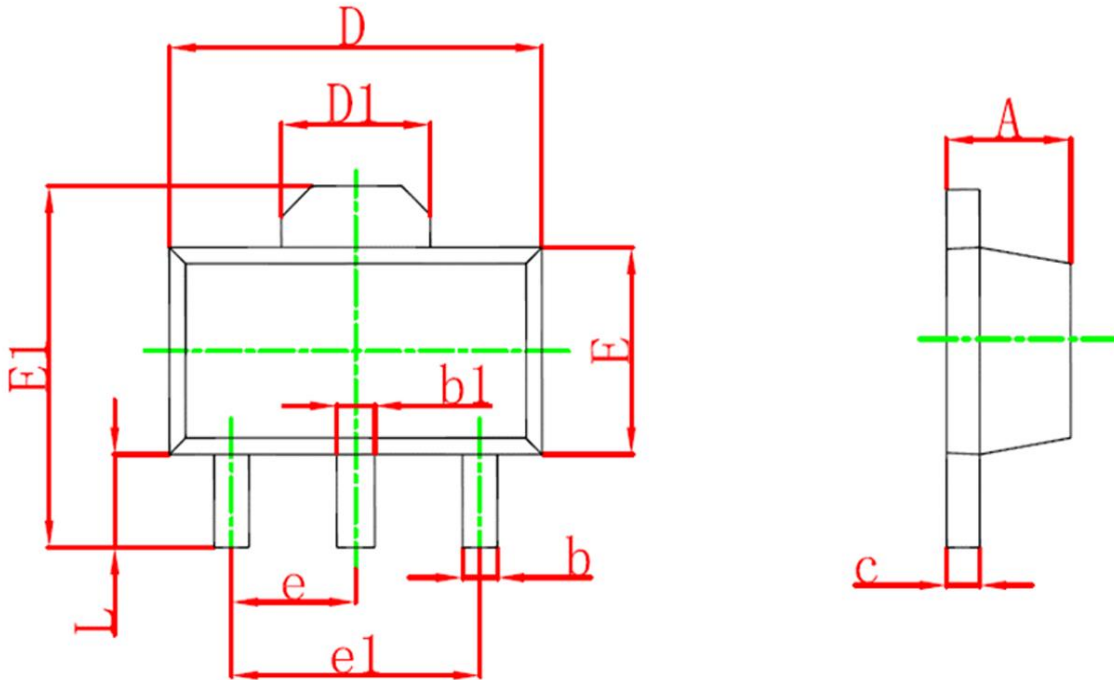
### Ordering Information (Example)

| Type          | Package   | Minimum Package(pcs) | Inner Box Quantity(pcs) | Outer Carton Quantity(pcs) | Delivery Mode |
|---------------|-----------|----------------------|-------------------------|----------------------------|---------------|
| MCR100- 6,- 8 | SOT-89-3L | 1,000                | 10,000                  | 40,000                     | 7"reel        |

## Typical Characteristics



SOT-89-3L Package information



| Symbol | Dimensions in Millimeters(mm) |       | Dimensions in Inches |       |
|--------|-------------------------------|-------|----------------------|-------|
|        | Min                           | Max   | Min                  | Max   |
| A      | 1.400                         | 1.600 | 0.055                | 0.063 |
| b      | 0.320                         | 0.520 | 0.013                | 0.020 |
| b1     | 0.400                         | 0.580 | 0.016                | 0.023 |
| c      | 0.350                         | 0.440 | 0.014                | 0.017 |
| D      | 4.400                         | 4.600 | 0.173                | 0.181 |
| D1     | 1.550 REF                     |       | 0.061 REF            |       |
| E      | 2.300                         | 2.600 | 0.091                | 0.102 |
| E1     | 3.940                         | 4.250 | 0.155                | 0.167 |
| e      | 1.500 TYP                     |       | 0.060 TYP            |       |
| e1     | 3.000 TYP                     |       | 0.118 TYP            |       |
| L      | 0.900                         | 1.200 | 0.035                | 0.047 |