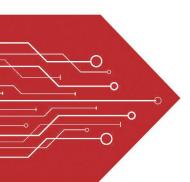
## MSKSEMI















**ESD** 

TVS

TSS

MOV

GDT

**PLED** 

# Broduct data sheet



#### **FEATURES**

- High Collector Current
- Complementary to SS8550

#### **SOT-89**

1. BASE



3. EMITTER



#### MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

| Symbol           | Parameter                                      | Value   | Unit       |
|------------------|--|---------|------------|
| V <sub>CBO</sub> | Collector-Base Voltage                         | 40      | V          |
| V <sub>CEO</sub> | Collector-Emitter Voltage                      | 25      | V          |
| V <sub>EBO</sub> | Emitter-Base Voltage                           | 5       | V          |
| Ic               | Collector Current -Continuous                  | 1.5     | Α          |
| Pc               | Collector Power Dissipation                    | 0.5     | W          |
| R <sub>OJA</sub> | Thermal Resistance From<br>Junction To Ambient | 250 °CM |            |
| TJ               | Junction Temperature                           | 150 ℃   |            |
| T <sub>stg</sub> | Storage Temperature                            | -55~150 | $^{\circ}$ |

#### **ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)**

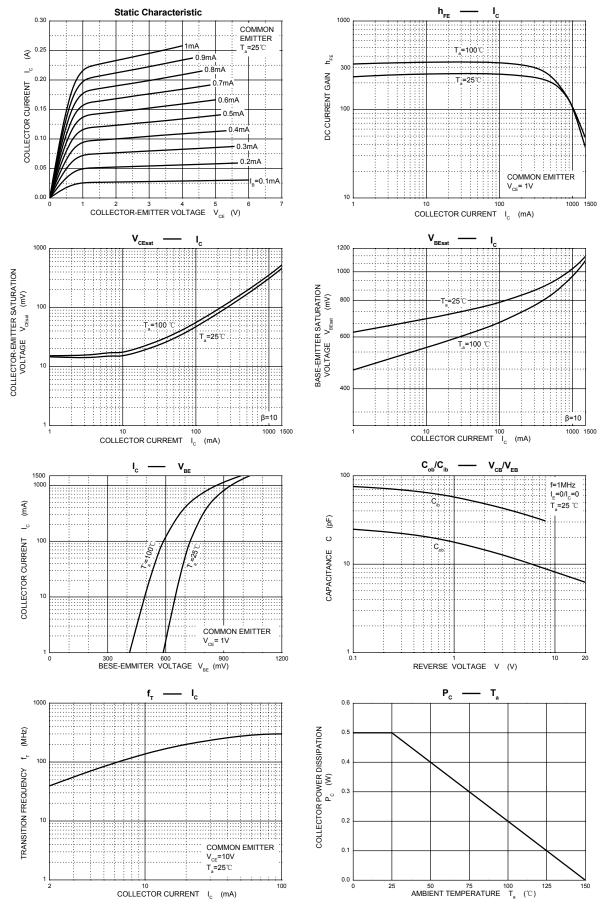
| Parameter                            | Symbol               | Test conditions  | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|-----|-----|-----|------|
| Collector-base breakdown voltage     | V <sub>(BR)CBO</sub> | I <sub>C</sub> = 100μA, I <sub>E</sub> =0              | 40  |     |     | V    |
| Collector-emitter breakdown voltage  | V <sub>(BR)CEO</sub> | I <sub>C</sub> = 1mA, I <sub>B</sub> =0                | 25  |     |     | V    |
| Emitter-base breakdown voltage       | V <sub>(BR)EBO</sub> | I <sub>E</sub> =100μA, I <sub>C</sub> =0               | 5   |     |     | V    |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =40V, I <sub>E</sub> =0                |     |     | 0.1 | μA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> = 5V, I <sub>C</sub> =0                |     |     | 0.1 | μA   |
| DC aureaut main                      | h <sub>FE(1)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> = 100mA            | 120 |     | 400 |      |
| DC current gain                      | h <sub>FE(2)</sub>   | V <sub>CE</sub> =1V, I <sub>C</sub> = 800mA            | 40  |     |     |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =800mA, I <sub>B</sub> = 80mA           |     |     | 0.5 | V    |
| Base-emitter saturation voltage      | V <sub>BE(sat)</sub> | I <sub>C</sub> =800mA, I <sub>B</sub> = 80mA           |     |     | 1.2 | V    |
| Transition frequency                 | f⊤                   | V <sub>CE</sub> =10V, I <sub>C</sub> = 50mA<br>f=30MHz | 100 |     |     | MHz  |

#### CLASSIFICATION OF hfe(1)

| Rank  | L       | Н       | J       |
|-------|---------|---------|---------|
| Range | 120-200 | 200-350 | 300-400 |

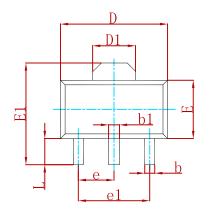


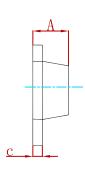
#### **Typical Characteristics**





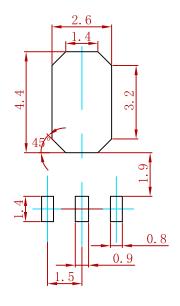
#### **PACKAGE MECHANICAL DATA**





| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |  |
|--------|---------------------------|-------|----------------------|-------|--|
|        | Min                       | Max   | Min                  | Max   |  |
| Α      | 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 |  |
| С      | 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 |  |
| е      | 1.500 TYP.                |       | 0.060 TYP.           |       |  |
| e1     | 3.000 TYP.                |       | 0.118 TYP.           |       |  |
| L      | 0.900                     | 1.200 | 0.035                | 0.047 |  |

### **Suggested Pad Layout**



- 1. Controlling dimension:in millimeters.
- 2.General tolerance:±0.05mm.3.The pad layout is for reference purposes only.

#### **REEL SPECIFICATION**

| P/N    | PKG    | QTY  |
|--------|--------|------|
| SS8050 | SOT-89 | 1000 |



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