

### / Descriptions

SOT-323          N    MOS

N-Channel MOSFET in a SOT-323 Plastic Package.

### / Features

2KV

Sensitive gate trigger current and Low Holding current.ESD protected up to 2KV, HF Product.

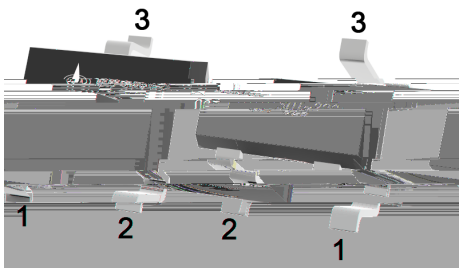
### / Applications

Intended for use in general purpose switching and phase control applications.

### / Equivalent Circuit



### / Pinning



Pin1:G    Pin2:S    Pin3:D

### / Marking

See Marking Instructions.

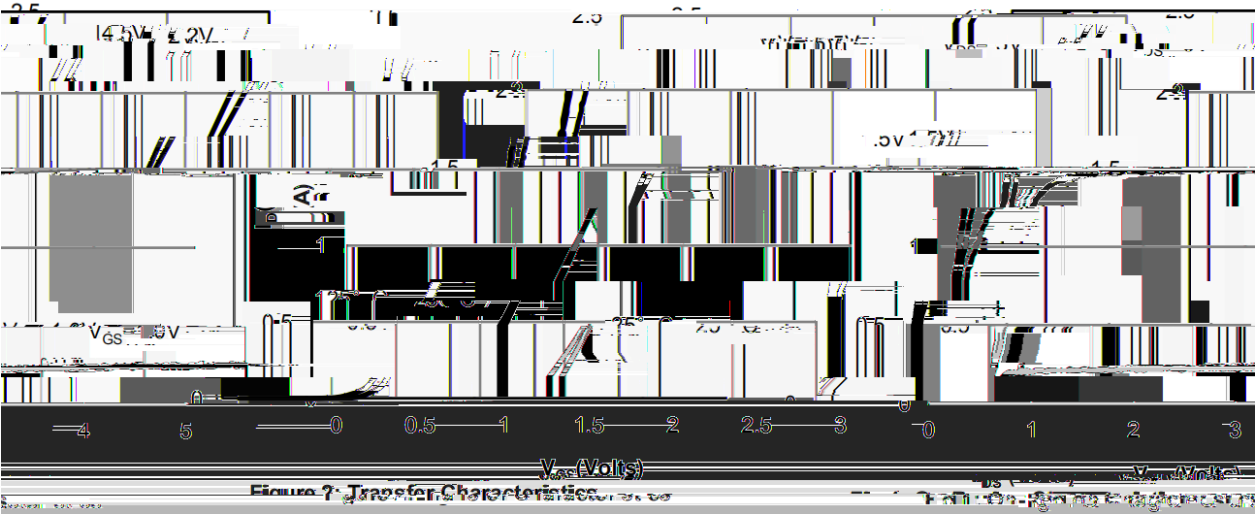
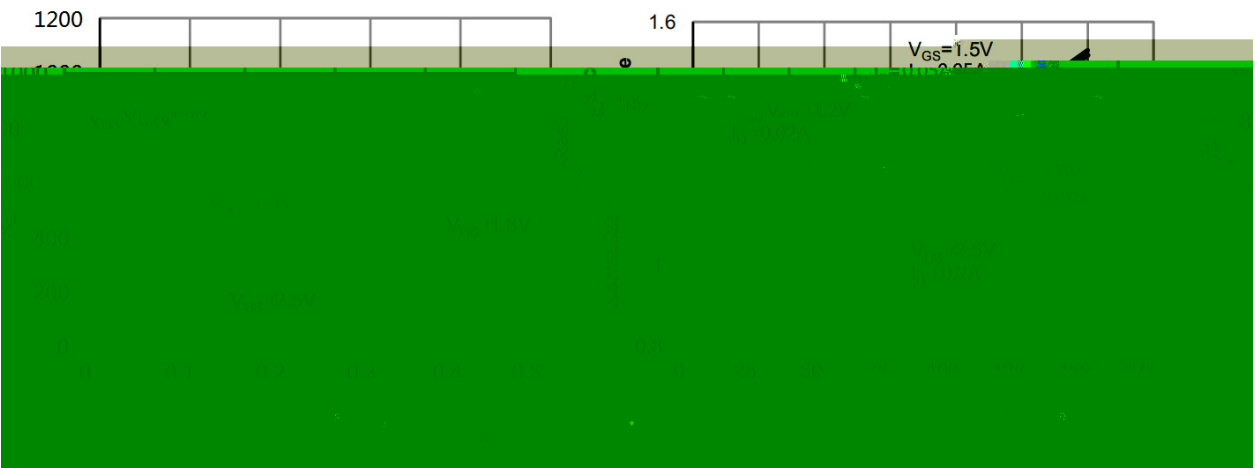
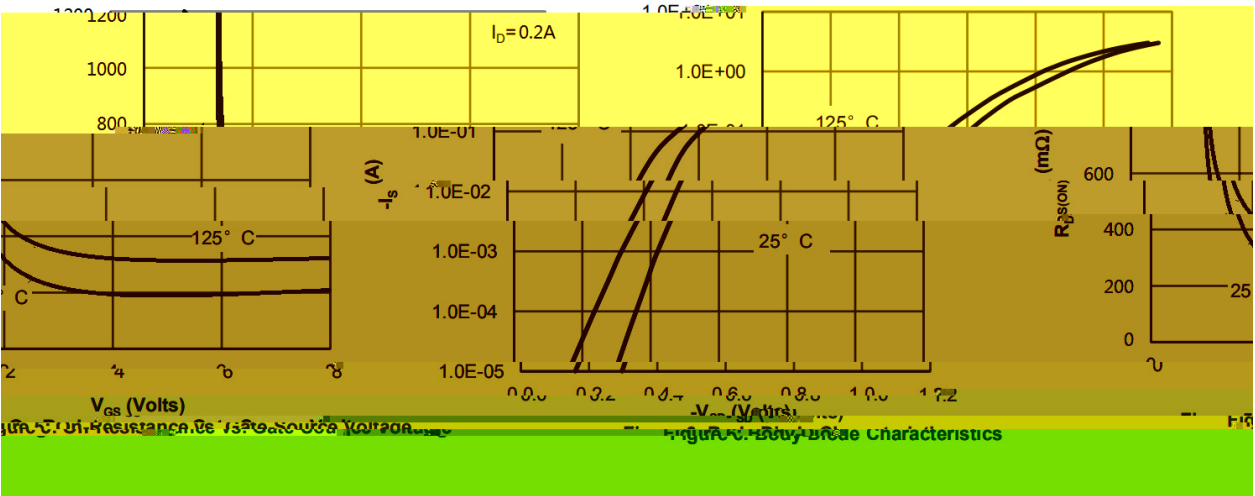
| Parameter                              |              | Symbol          | Rating     | Unit |
|----------------------------------------|--------------|-----------------|------------|------|
| Drain-Source Voltage                   |              | $V_{DSS}$       | 20         | V    |
| Gate-Source Voltage                    |              | $V_{GSS}$       | $\pm 8$    | V    |
| Drain Current – Continuous             |              | $I_D$           | 0.75       | A    |
| Pulsed Drain Current                   |              | $I_{DM}$        | 3          |      |
| Power Dissipation                      |              | $P_D$           | 200        | mW   |
| Junction and Storage Temperature Range |              | $T_J, T_{stg}$  | -55 to 150 |      |
| Thermal resistance, junction - ambient | $t \leq 10s$ | $R_{\theta JA}$ | 450        | /W   |
|                                        | Steady-State |                 | 570        |      |

|                                 |           |            |                |    |      |   |         |
|---------------------------------|-----------|------------|----------------|----|------|---|---------|
|                                 |           |            |                |    |      |   | Unit    |
| Drain–Source Breakdown Voltage  | $V_{DSS}$ | $V_{GS}=0$ | $I_D=250\mu A$ | 20 | 22.9 |   | V       |
| Zero Gate Voltage Drain Current | $I_{DSS}$ | $V_{GS}=0$ | $V_{DS}=20V$   |    |      | 1 | $\mu A$ |

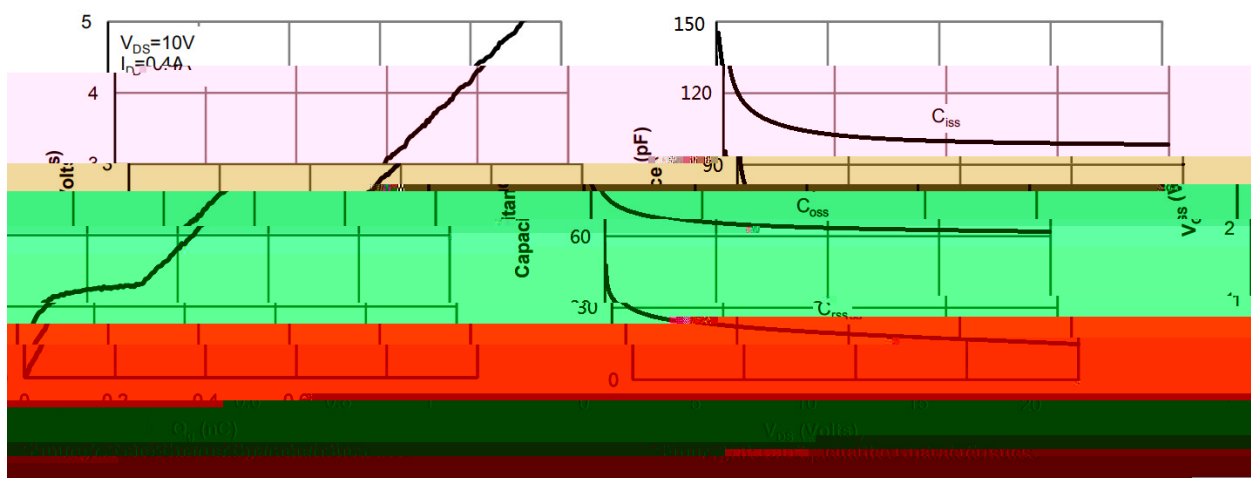
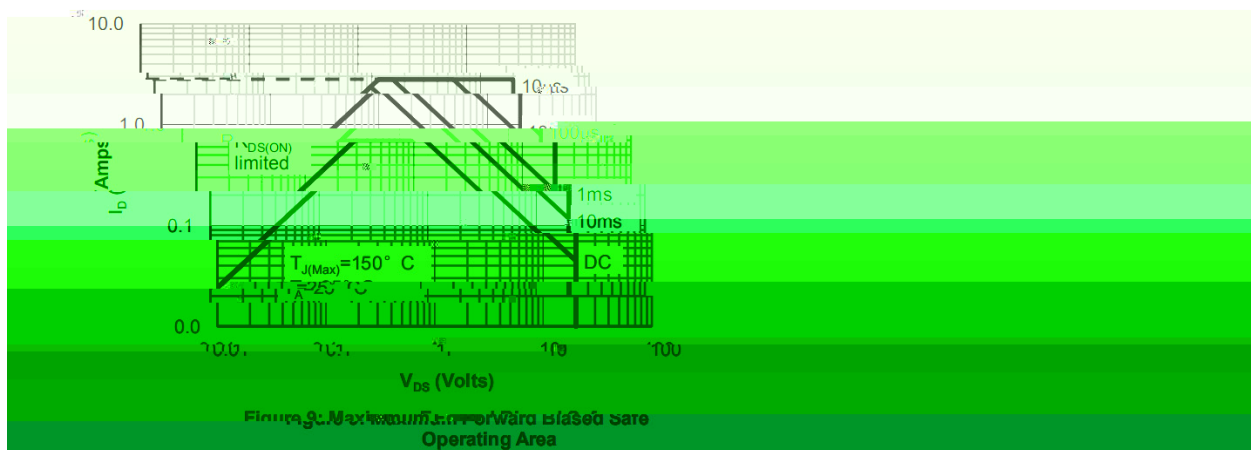
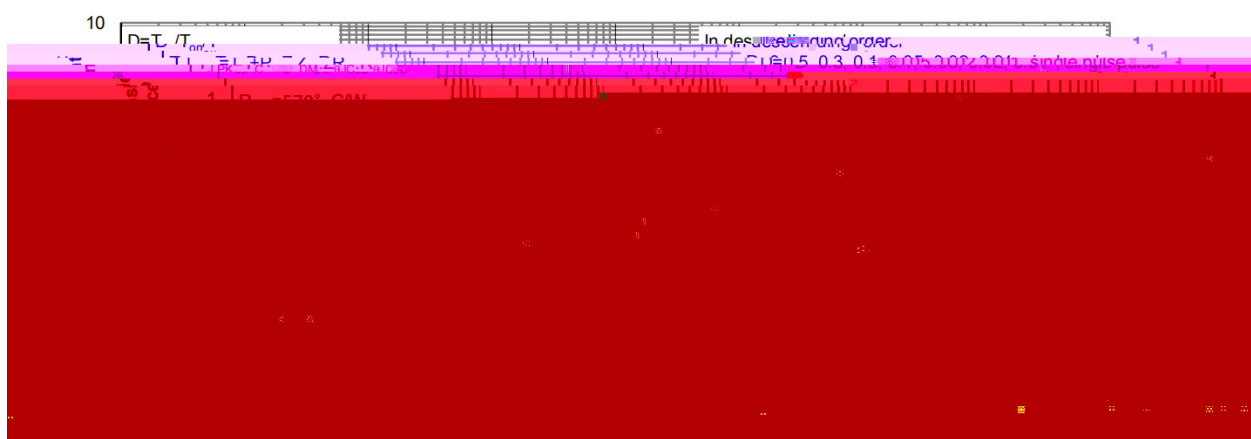

**/ Electrical Characteristics(Ta=25 )**

| Parameter           | Symbol       | Test Conditions                                                        | Min | Typ  | Max | Unit |
|---------------------|--------------|------------------------------------------------------------------------|-----|------|-----|------|
| Total Gate Charge   | $Q_g$        | $V_{GS}=4.5V, \quad V_{DS}=10V,$<br>$I_D=0.4A$                         |     | 0.85 |     | nC   |
| Gate Source Charge  | $Q_{gs}$     |                                                                        |     | 0.1  |     |      |
| Gate Drain Charge   | $Q_{gd}$     |                                                                        |     | 0.25 |     |      |
| Turn-On Delay Time  | $t_{d(on)}$  | $V_{GS}=4.5V \quad V_{DS}=10V$<br>$R_L=25\Omega \quad R_{GEN}=3\Omega$ |     | 2    |     | ns   |
| Turn-On Rise Time   | $t_r$        |                                                                        |     | 4    |     | ns   |
| Turn-Off Delay Time | $t_{d(off)}$ |                                                                        |     | 18   |     | ns   |
| Turn-Off Fall Time  | $t_f$        |                                                                        |     | 8    |     | ns   |

/ Electrical Characteristic Curve



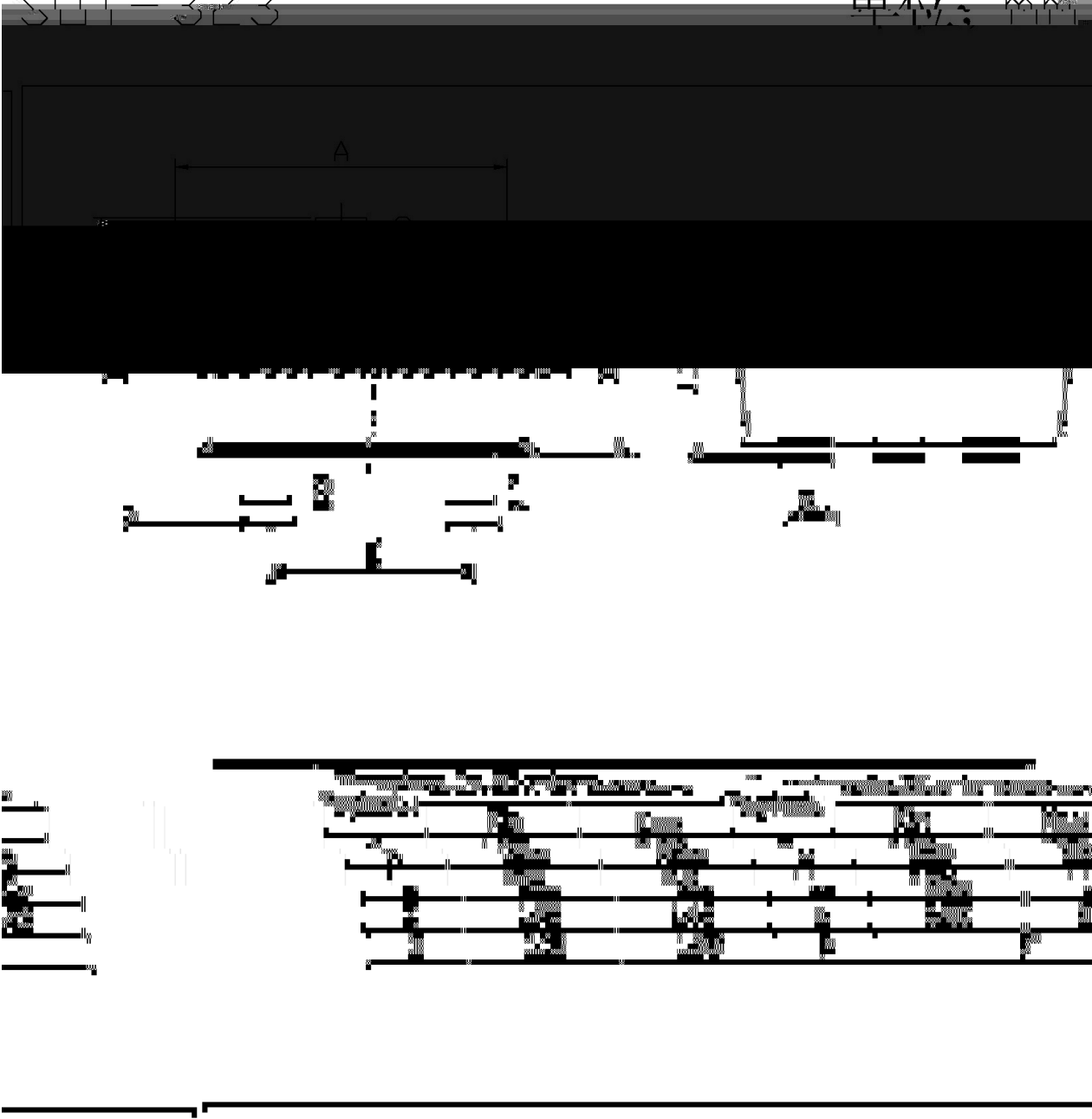
## / Electrical Characteristic Curve



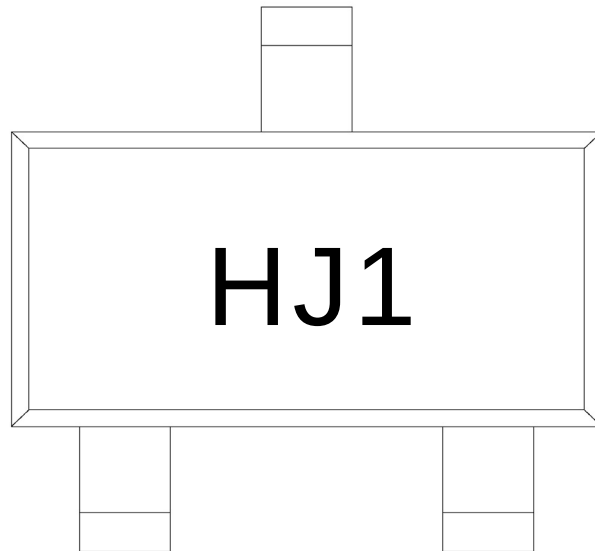
/ Package Dimensions

SOT-323

单位: mm



**/ Marking Instructions**



H

J1

Note:

H: Company Code

J1: Product Type Code

**BRCS3134WA**