

## Section VII: SPICE Model Parameters

Please copy this code from the SPICE model PDF file on our website ([http://www.genesicsemi.com/images/hit\\_sic/sjt/2N7638-GA\\_SPICE.pdf](http://www.genesicsemi.com/images/hit_sic/sjt/2N7638-GA_SPICE.pdf)) into LTSPICE (version 4) software for simulation of the 2N7638-GA.

```
*      MODEL OF GeneSiC Semiconductor Inc.
*
*      $Revision: 1.3          $
*      $Date: 12-DEC-2014    $
*
*      GeneSiC Semiconductor Inc.
*      43670 Trade Center Place Ste. 155
*      Dulles, VA 20166
*
*      COPYRIGHT (C) 2014 GeneSiC Semiconductor Inc.
*      ALL RIGHTS RESERVED
*
* These models are provided "AS IS, WHERE IS, AND WITH NO WARRANTY
* OF ANY KIND EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED
* TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A
* PARTICULAR PURPOSE."
* Models accurate up to 2 times rated drain current.
*
.model 2N7638 NPN
+ IS      9.8338E-48
+ ISE     1.0733E-26
+ EG      3.23
+ BF      130
+ BR      0.55
+ IKF     200
+ NF      1
+ NE      2.
+ RB      7.2
+ IRB     0.002
+ RBM     0.2
+ RE      0.1039
+ RC      0.06188
+ CJC     2.73E-10
+ VJC     3.04
+ MJC     0.448
+ CJE     6.86E-10
+ VJE     2.89
+ MJE     0.466
+ XTI     3
+ XTB     -0.35
+ TRC1   1.90E-2
+ VCEO   600
+ ICRATING 20
+ MFG     GeneSiC_Semiconductor
*
* End of 2N7638-GA SPICE Model
```