

描述 / Descriptions

TO-252 塑封封装 SiC 肖特基二极管。

SiC Schottky Barrier Diode in a TO-252 Plastic Package.

特征 / Features

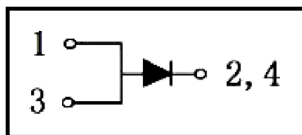
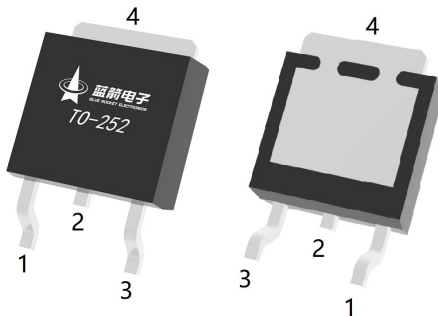
损耗低，效率高，无卤产品。

Low power loss, high efficiency, HF Product.

用途 / Applications

用于高频、高压、大电流整流二极管，续流二极管。

For high frequency, high voltage, high current rectifier diode, freewheeling diode.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN1、3 : Anode PIN 2、4 : Cathode

印章代码 / Marking

见印章说明。

See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	V_{RRM}	650	V
Maximum RMS Voltage	V_{RMS}	455	V
Maximum DC blocking Voltage	V_{DC}	650	V
Continuous Forward Current, $T_C=150^{\circ}C$	I_F	6	A
Peak forward surge current, $t_p=8.3ms$	I_{FSM}	52	A
Total power dissipation	P_D	53	W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	2.8	$^{\circ}C/W$
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55~+175	$^{\circ}C$

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Reverse Voltage	V_R		650	-	-	V
Forward Voltage	V_F	$I_F=6A$ $T_C=25^{\circ}C$	-	1.27	1.5	
		$I_F=6A$ $T_C=175^{\circ}C$	-	1.38	1.6	
Instantaneous Reverse Current	I_R (Note 1)	$V_R=650V$ $T_a=25^{\circ}C$	-	4	50	μA
		$V_R=650V$ $T_a=175^{\circ}C$	-	200	200	
Total capacitive charge	Q_C	$V_R=650V, I_F=6A$ $di/dt=200A/\mu s$	-	17	-	nC
Total capacitance	C	$V_R=0V, T_J=25^{\circ}C, f=1MHz$	-	230	-	pF
		$V_R=200V, T_J=25, f=1MHz$		39	-	
		$V_R=400V, T_J=25, f=1MHz$	-	28	-	
Capacitance Stored Energy	E_C	$V_R=400V$	-	4.8	-	μJ

电参数曲线图 / Electrical Characteristic Curve

FIG.1-FORWARD CHARACTERISTICS

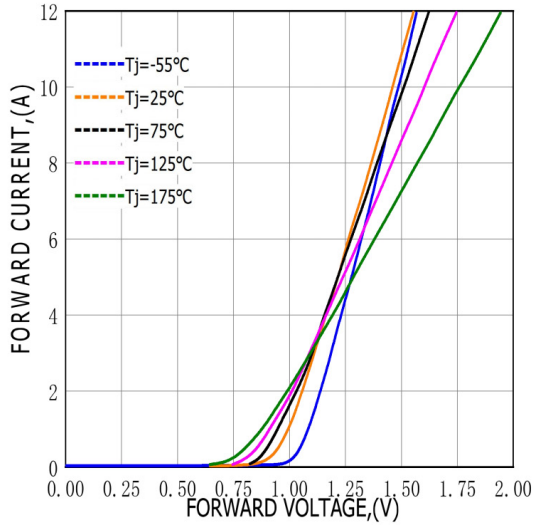


FIG.2-REVERSE CHARACTERISTICS

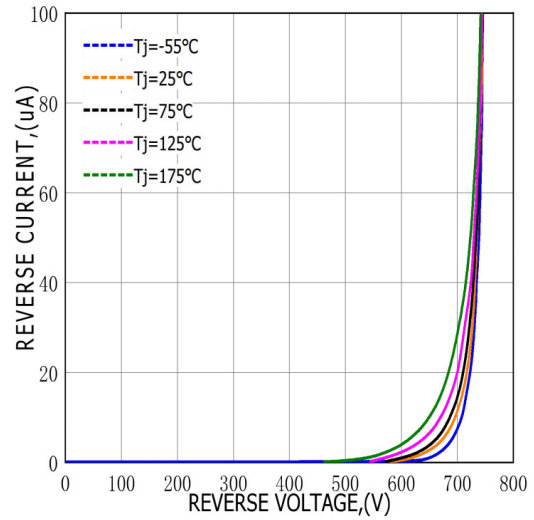
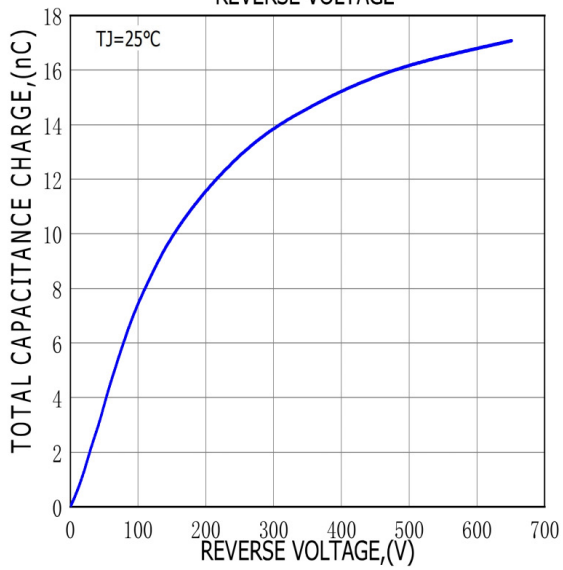
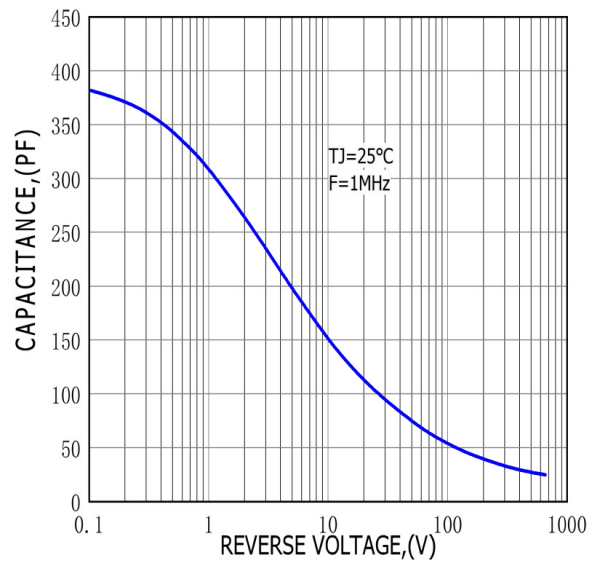
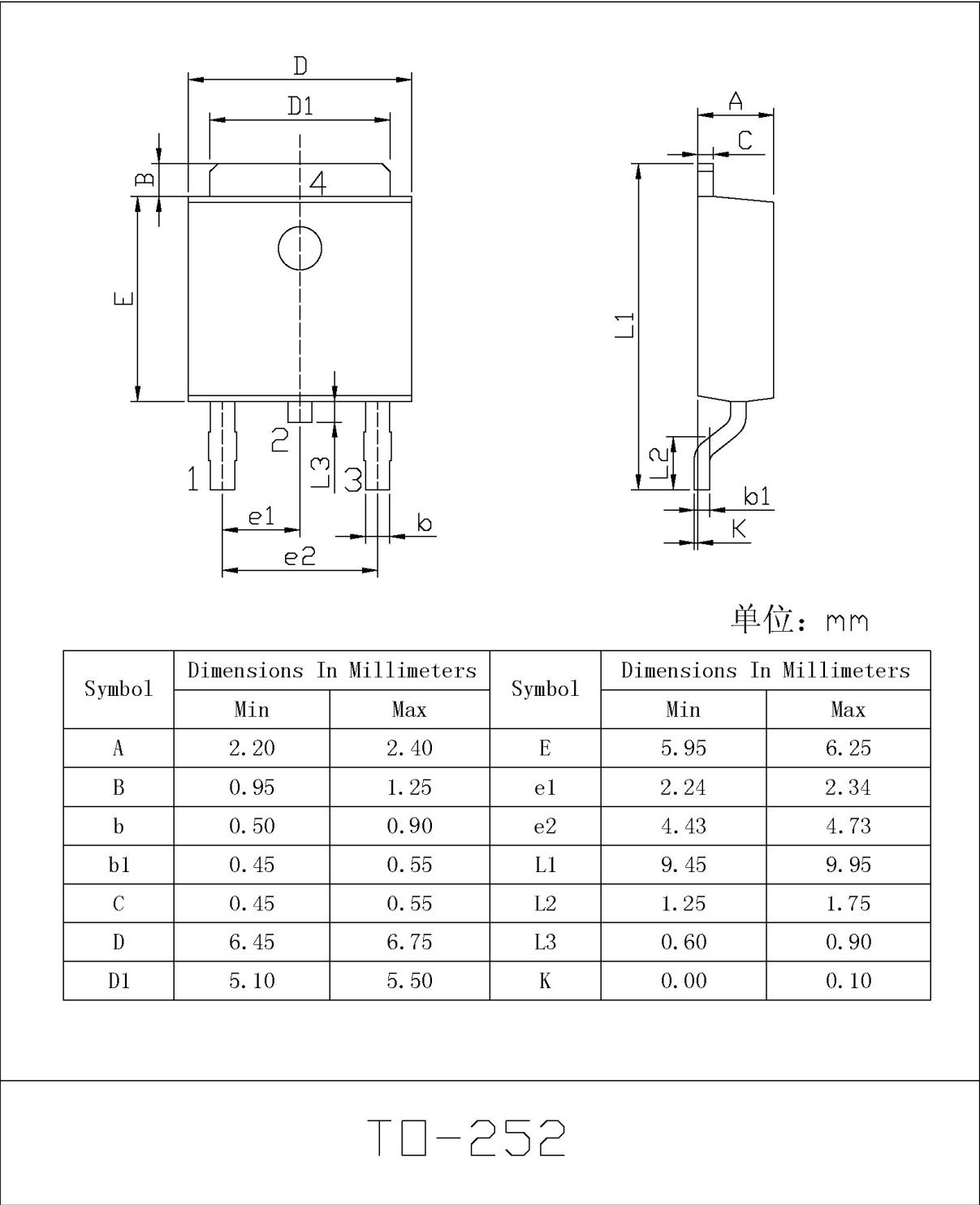
FIG.3-TOTAL CAPACITANCE CHARGE VS
REVERSE VOLTAGE

FIG.4-CAPACITANCE VS REVERSE VOLTAGE

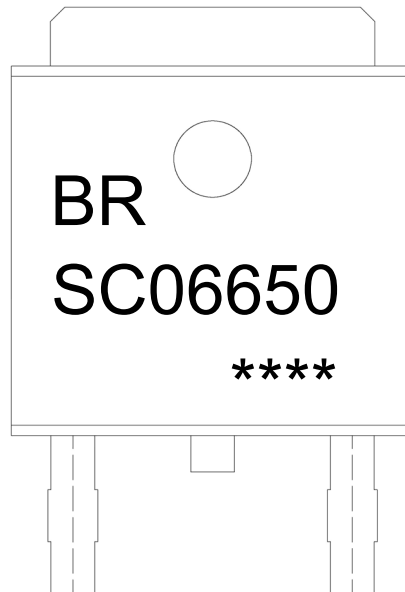


外形尺寸图 / Package Dimensions





印章说明 / Marking Instructions



说明：

BR： 为公司代码

SC06650： 为型号代码

****： 为生产批号代码，随生产批号变化

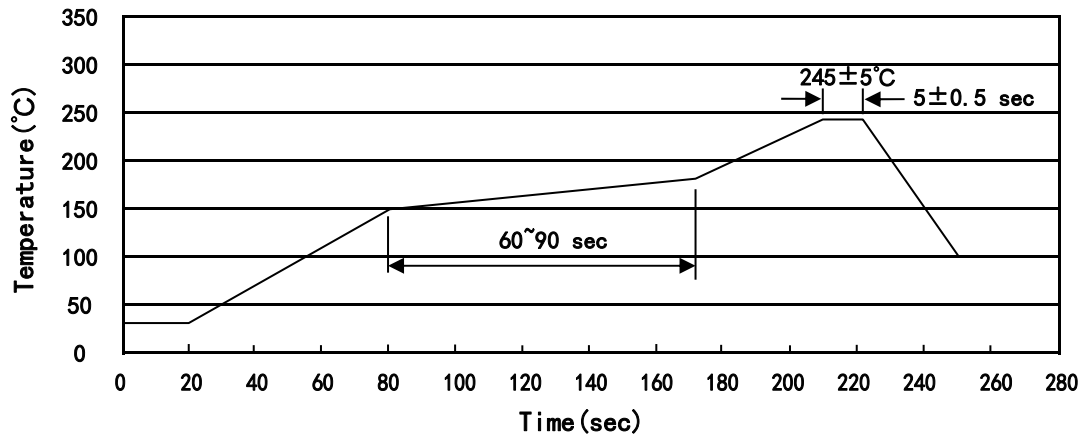
Note:

BR: Company Code

SC06650: Product Type Code

****: Lot No. Code, code change with Lot No

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

使用说明 / Notices