

**WSB5511M**
**3A Schottky Barrier Diode**
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)
**Features**

- Low forward voltage
- Extremely low thermal resistance
- High current capability


**SMA (DO-214AC)**

**Circuit**

**Marking**
**Applications**

- Switching circuit
- Middle current rectification

**Absolute maximum ratings**

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	$V_{RRM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current (DC)	$I_O$	3.0	A
Forward Peak Surge Current <sup>(1)</sup>	$I_{FSM}$	50	A
Junction temperature	$T_J$	-55 ~ 150	°C
Operating temperature	Topr	-55 ~ 150	°C
Storage temperature	Tstg	-55 ~ 150	°C

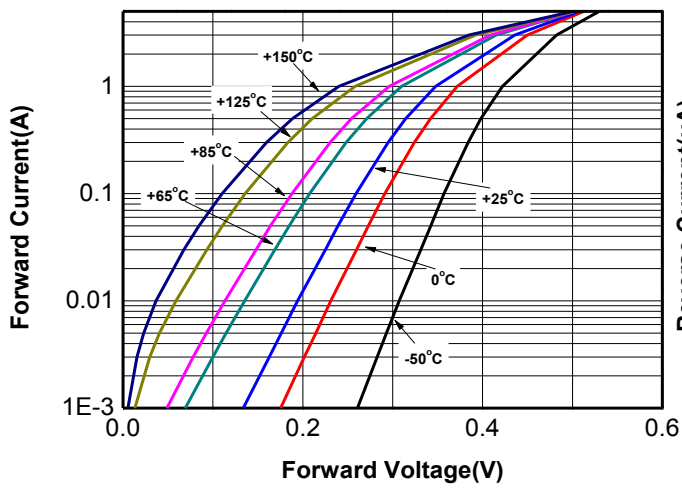
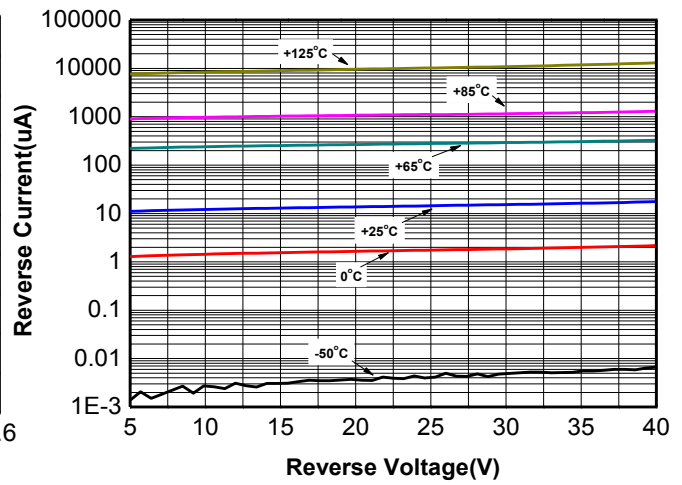
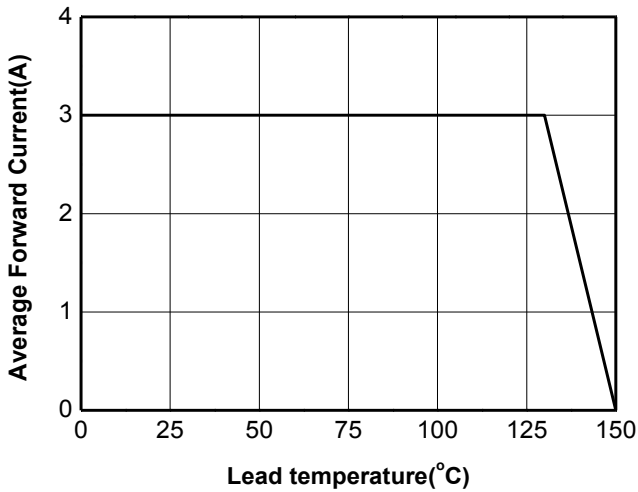
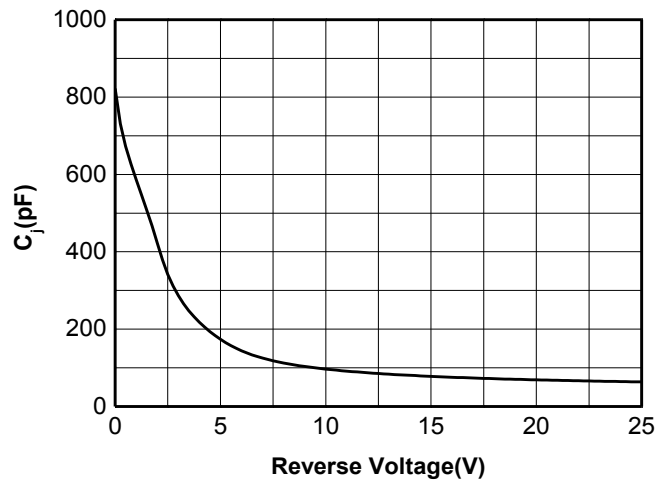
**Electronics characteristics (T<sub>A</sub>=25°C)**

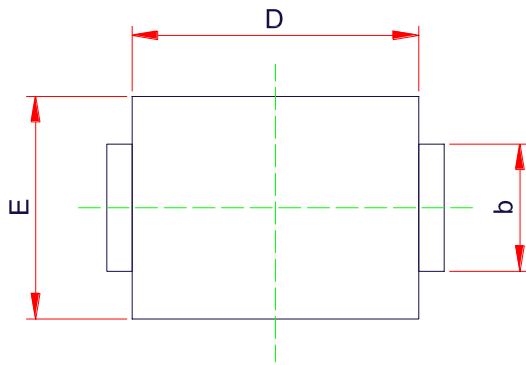
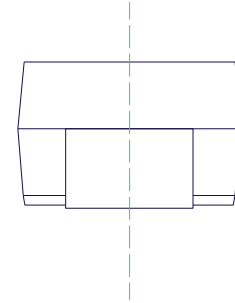
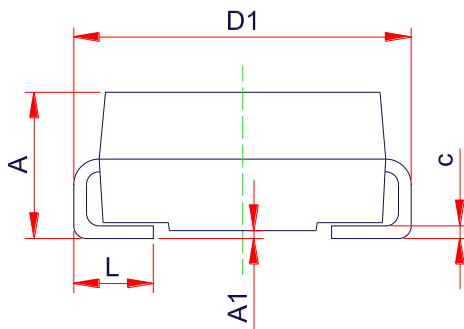
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage <sup>(2)</sup>	$V_F$	$I_F=3.0A$			0.50	V
Reverse current	$I_R$	$V_R=40V$			0.5	mA
Junction capacitance	$C_J$	$V_R=4V, F=1MHz$		220		pF
Thermal resistance	$R_{\theta(J-L)}$	Junction to Lead (Fig.2)		17		K/W

**Order Informations**

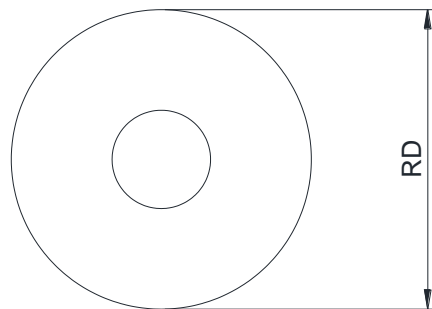
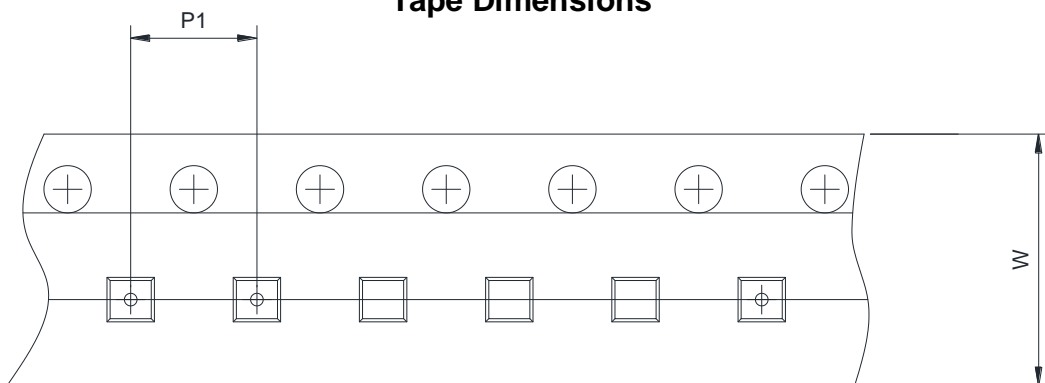
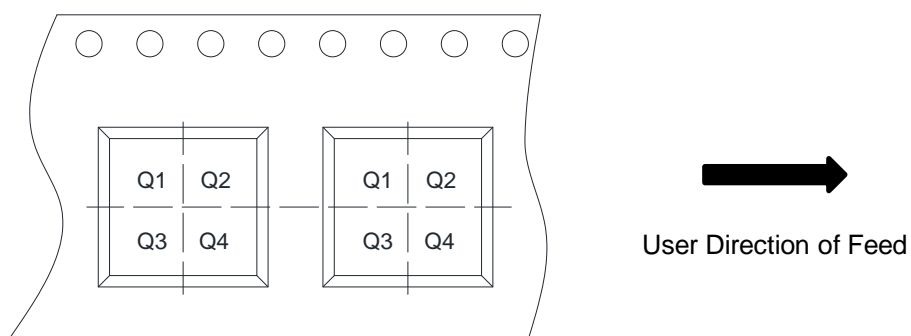
Device	Package	Marking	Shipping
WSB5511M-2/TR	SMA (DO-214AC)	.EC* <sup>(3)</sup>	5000/Reel&Tape

**Note1: Pulse width=8.3ms, single pulse;**
**Note2: Single Pulse, test Tp=380us;**
**Note3: \* =Month code (A~Z); .EC =Device code;**

**Typical characteristics (Ta=25°C, unless otherwise noted)**

**Fig.1 Forward voltage vs. Forward current**

**Fig.2 Reverse current vs. Reverse voltage**

**Fig.3 Maximum Forward Current Derating Curve**

**Fig.4 Junction capacitance vs. Reverse voltage**

**Package outline dimensions**
**SMA**

**TOP VIEW**

**SIDE VIEW**

**SIDE VIEW**

Symbol	Dimensions in millimeters	
	Min.	Max.
A	1.90	2.50
A1	0.203 MAX	
D	3.90	4.70
D1	4.75	5.35
E	2.40	2.85
c	0.10	0.31
b	1.27	1.95
L	0.76	1.55

**TAPE AND REEL INFORMATION**
**Reel Dimensions**

**Tape Dimensions**

**Quadrant Assignments For PIN1 Orientation In Tape**


RD	Reel Dimension	<input type="checkbox"/> 7inch	<input checked="" type="checkbox"/> 13inch
W	Overall width of the carrier tape	<input type="checkbox"/> 8mm	<input checked="" type="checkbox"/> 12mm <input type="checkbox"/> 16mm
P1	Pitch between successive cavity centers	<input type="checkbox"/> 2mm	<input checked="" type="checkbox"/> 4mm <input type="checkbox"/> 8mm
Pin1	Pin1 Quadrant	<input checked="" type="checkbox"/> Q1	<input checked="" type="checkbox"/> Q2 <input type="checkbox"/> Q3 <input type="checkbox"/> Q4

制 修 订 记 录					
文件版本	制修日期	修订页次	修订人	变更内容	
Rev.1.0	2013/5/21			建立文档	
Rev.1.1	2013/7/24			修改 IF=3A	
Rev.1.2	2013/8/28			修改 VF 和 IR 曲线, Marking	
Rev.1.3	2013/10/08			修改 VF 与 IR, Cj 曲线	
Rev.1.4	2014/01/21		衷世雄	添加 125 度曲线	
Rev.1.5	2014/03/17		衷世雄	更换 wafer, 相关信息更新	
批准		审核		编制	衷世雄
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各部门会签					
应用部	封装部	市场部	生产管理部		