

### 1. Features

- The plastic package carries Underwriters
- Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds at terminals

### 2. Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	SS 52B	SS 53B	SS 54B	SS 55B	SS 56B	SS 58B	SS 510B	SS 5150B	SS 5200B	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	150	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current At TL(See Fig.1)	$I_{(AV)}$							5			A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC Method)	$I_{FSM}$							150			A
Maximum Instantaneous Forward Voltage At 3A	$V_F$		0.55		0.7		0.85		0.95		V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$				0.5				0.2		mA
					20		10		2		mA
Typical Junction Capacitance (NOTE 1)	$C_J$				200						pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$				55						°C/W
Operating Junction Temperature Range	$T_J$			-50 to +125			-50 to +150				°C
Storage Temperature Range	$T_{STG}$				-50 to +150						°C

Note:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas



### 3. Typical Characteristic

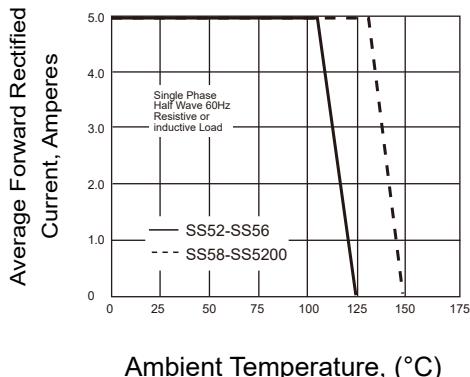


Figure 1: Forward Current Derating Curve

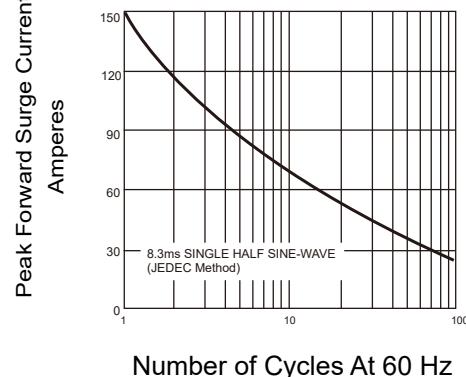


Figure 2: Maximum Non-repetitive Peak Forward Surge Current

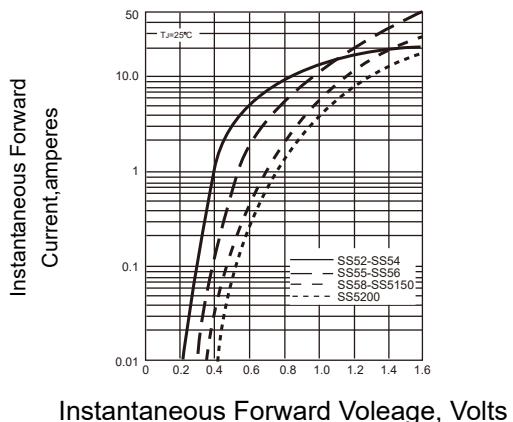


Figure 3: Typical Instantaneous Forward Characteristics

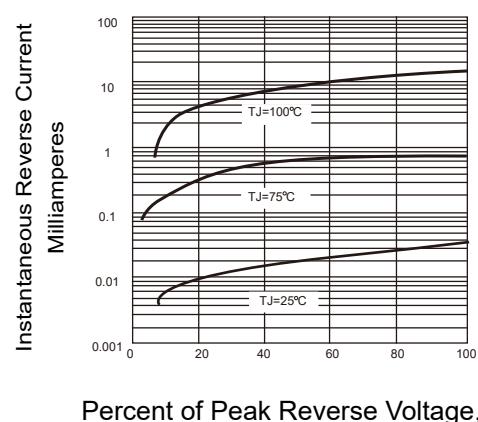


Figure 4: Typical Reverse Characteristics

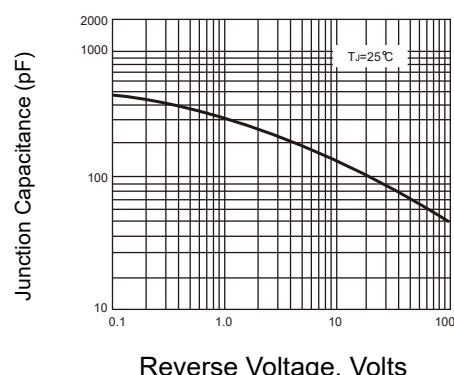


Figure 5: Typical Junction Capacitance

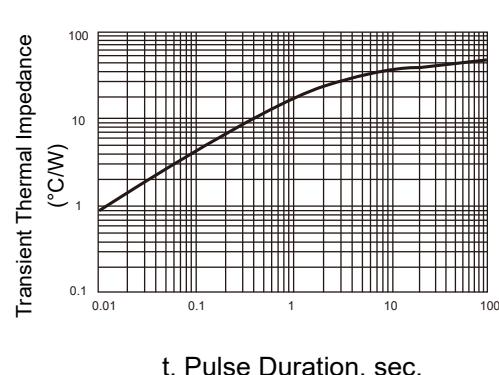
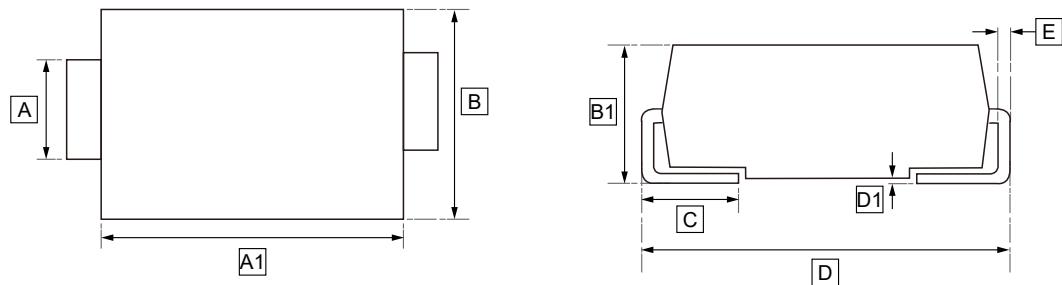


Figure 6: Typical Transient Thermal Impedance



## 4.SMB Package Outline Dimensions

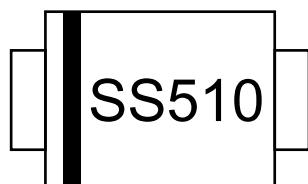


### DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	B	B1	C	D	D1	E
<b>Min</b>	1.80	4.06	3.30	2.13	0.76	5.21	-	0.152
<b>Max</b>	2.20	4.57	3.94	2.44	1.52	5.59	0.203	0.305



## 5.Ordering information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW SS52B	SS52	SMB	3000	Tape and reel
UMW SS54B	SS54	SMB	3000	Tape and reel
UMW SS56B	SS56	SMB	3000	Tape and reel
UMW SS58B	SS58	SMB	3000	Tape and reel
UMW SS510B	SS510	SMB	3000	Tape and reel
UMW SS512B	SS512	SMB	3000	Tape and reel
UMW SS515B	SS515	SMB	3000	Tape and reel
UMW SS520B	SS520	SMB	3000	Tape and reel



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