

Surface Mount Schottky Barrier Rectifier  
 Reverse Voltage - 20 to 200V  
 Forward Current - 2.0A

### FEATURES

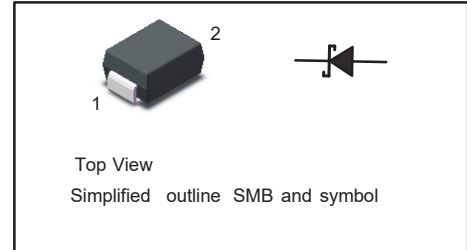
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case : SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.095g / 0.003oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings and Electrical characteristics

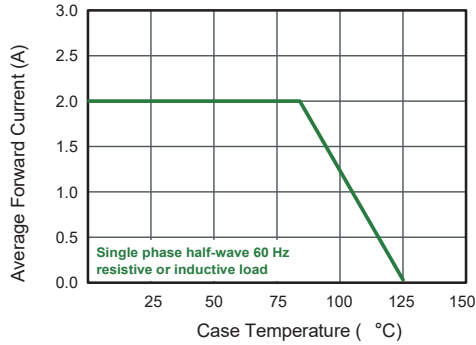
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	STPS2L20U	STPS2L40U	STPS2L60U	STPS2L80U	STPS2L100U	STPS2L120U	STPS2L150U	STPS2L200U	Units	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V	
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0								A	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	55					45				A
Max Instantaneous Forward Voltage at 2 A	$V_F$	0.55		0.70		0.85		0.95		V	
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25\text{ °C}$ $T_a = 100\text{ °C}$	$I_R$	0.5			0.3				5	3	mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	220				110				pF	
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	60								°C/W	
Operating Junction Temperature Range	$T_j$	-55 ~ +125								°C	
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C	

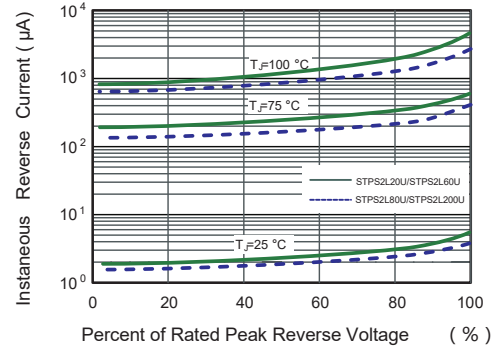
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

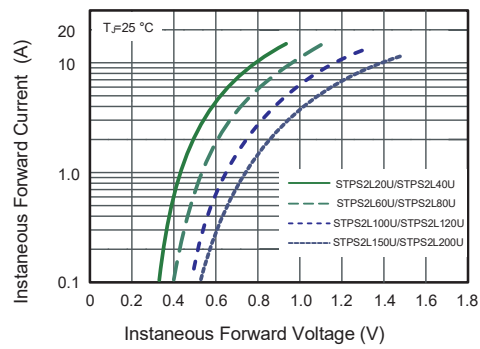
**Fig.1 Forward Current Derating Curve**



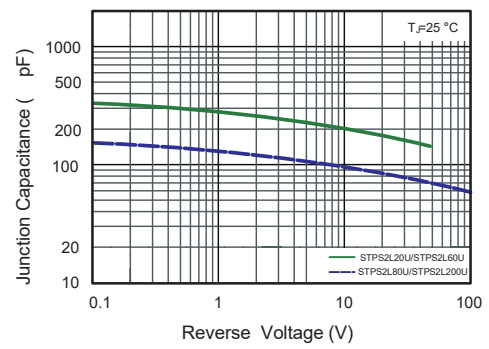
**Fig.2 Typical Reverse Characteristics**



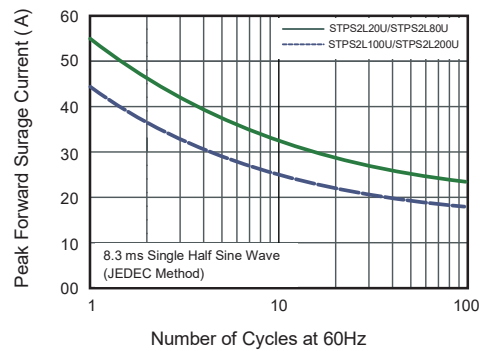
**Fig.3 Typical Forward Characteristic**



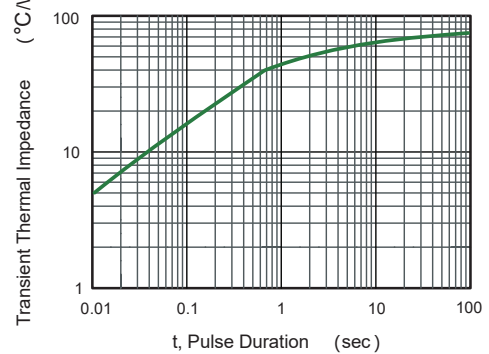
**Fig.4 Typical Junction Capacitance**

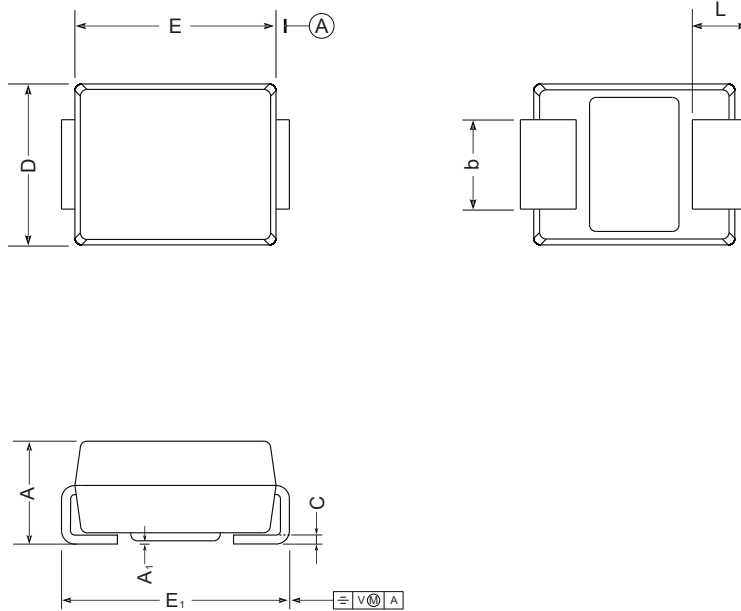


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



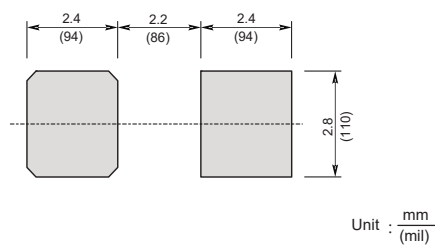
**Fig.6- Typical Transient Thermal Impedance**





SMB mechanical data

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

**The recommended mounting pad size**

**Marking**

Type number	Marking code
STPS2L20U	SS22L
STPS2L40U	SS24L
STPS2L60U	SS26L
STPS2L80U	SS28L
STPS2L100U	SS210L
STPS2L120U	SS212L
STPS2L150U	SS215L
STPS2L200U	SS220L