

# SM520B THRU SM5100B

VOLTAGE 20V ~ 100V

5.0AMP Surface Mount Schottky Barrier Rectifiers

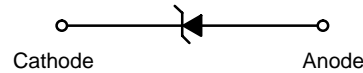
## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams

DO-214AA  
SMB



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM520B	SM530B	SM540B	SM550B	SM560B	SM580B	SM5100B	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current See Fig. 1	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	120							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.70		0.85			V
Maximum DC Reverse Current Ta=25°C	5.0							mA
at Rated DC Blocking Voltage Ta=100°C	50							mA
Typical Junction Capacitance (Note1)	380							pF
Typical Thermal Resistance R JA (Note 2)	10							°C/W
Operating Temperature Range Tj	-50 — +125							°C
Storage Temperature Range Tstg	-65 — +150							°C

### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SM520B THRU SM5100B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

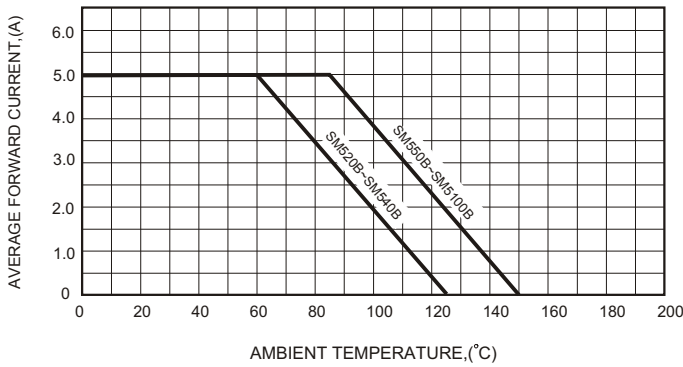


FIG.2-TYPICAL FORWARD CHARACTERISTICS

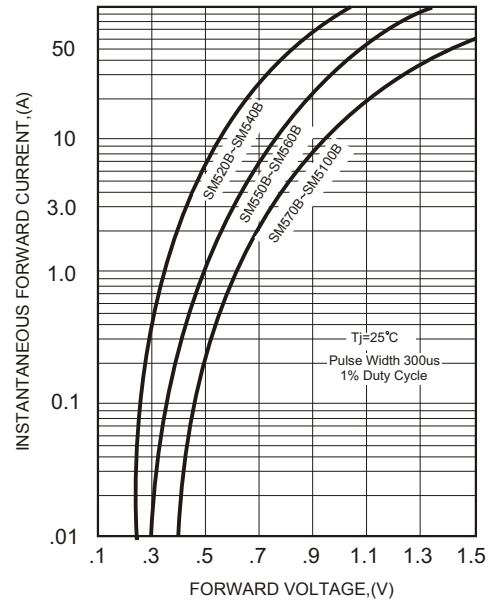


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

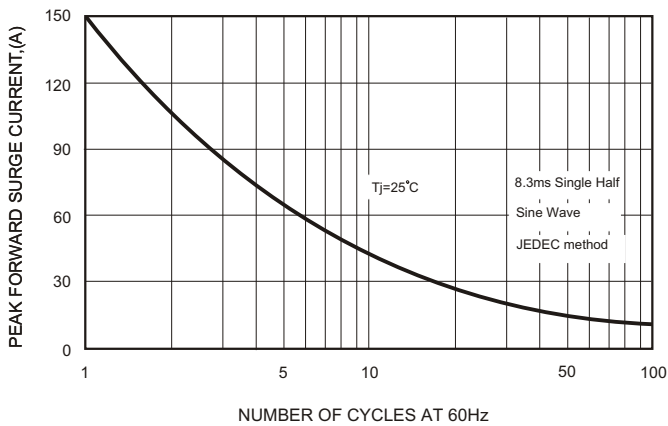


FIG.4-TYPICAL JUNCTION CAPACITANCE

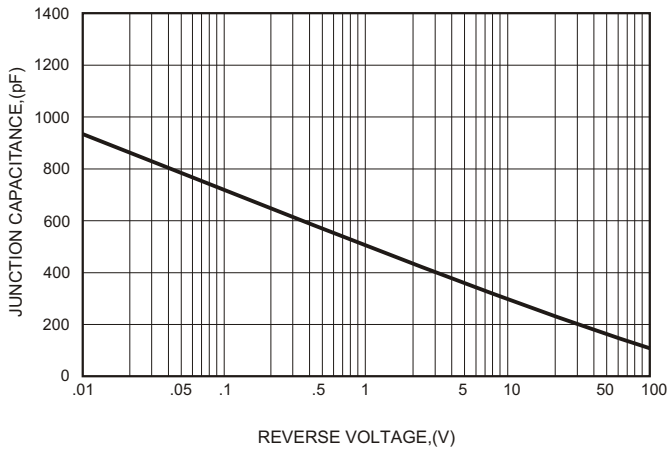
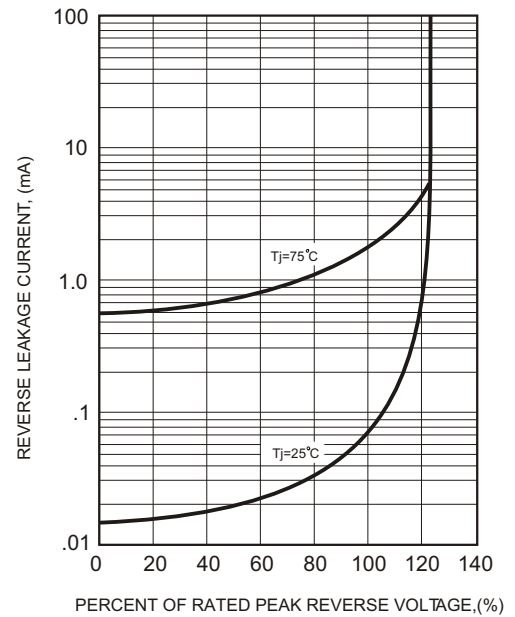
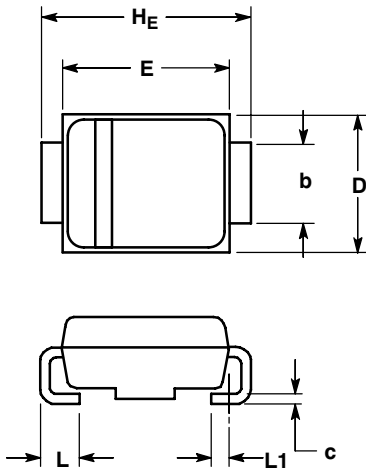


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



**PACKAGE DIMENSIONS**

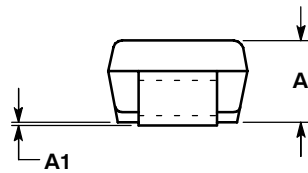
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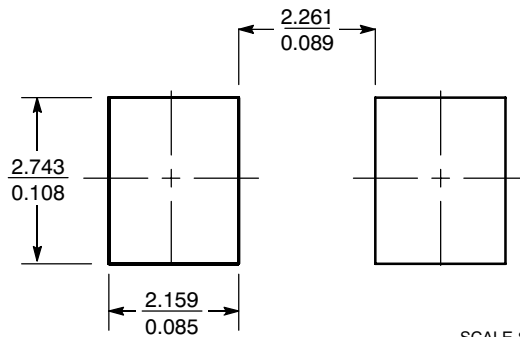
NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. D DIMENSION SHALL BE MEASURED WITHIN DIMENSION P.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.90	2.13	2.45	0.075	0.084	0.096
A1	0.05	0.10	0.20	0.002	0.004	0.008
b	1.96	2.03	2.20	0.077	0.080	0.087
c	0.15	0.23	0.31	0.006	0.009	0.012
D	3.30	3.56	3.95	0.130	0.140	0.156
E	4.06	4.32	4.60	0.160	0.170	0.181
HE	5.21	5.44	5.60	0.205	0.214	0.220
L	0.76	1.02	1.60	0.030	0.040	0.063
L1		0.51 REF			0.020 REF	



**SOLDERING FOOTPRINT\***

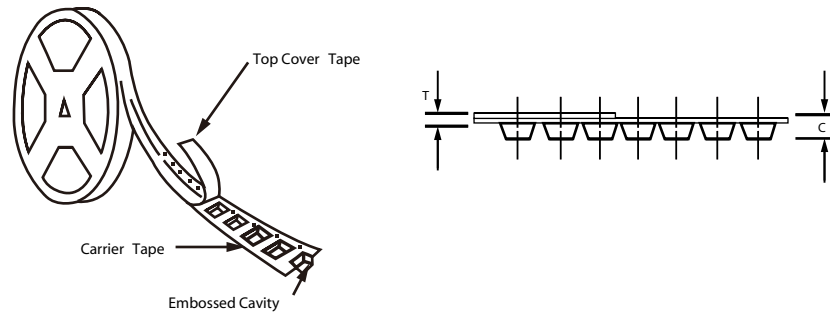
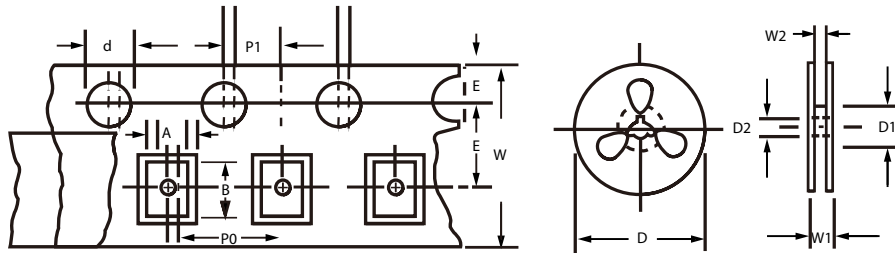


SCALE 8:1 (mm/inches)

## Surface Mount Packaging

Packing

DEVICE TYPE	Q'TY/REEL (PCS)	REEL DIA. (mm)	BOX SIZE (mm)	Q'TY/BOX (PCS)	CARTON / SIZE (mm)	Q'TY / CARTON (PCS)
SMB	3K	330	337x337x39	6K	380x220x370	30K



Reel Taping Specifications for Surface Mount Devices

Item	Symbol	SMA	SMB	SMC
Carrier width	A	2.7 (max)	4.0 (max)	2.7 (max)
Carrier length	B	5.3 (max)	5.9 (max)	5.3 (max)
Carrier depth	C	2.66 (max)	3.0 (max)	2.66 (max)
Sprocket hole	d	1.50±0.1 DIA	1.50±0.1 DIA	1.50±0.1 DIA
Reel outside diameter	D	330±2	330±2	330±2
Reel inner diameter	D1	50 min	50 min	50 min
Feed hole diameter	D2	13.5±1	13.5±1	13.5±1
Sprocket hole position	E	1.75±0.1	1.75±0.1	1.75±0.1
Punch hole position	F	5.5±0.05	5.5±0.05	7.5±0.1
Sprocket hole pitch	P	4.0±0.1	8.0±0.1	8.0±0.1
Sprocket hole pitch	P0	4.0±0.1	4.0±0.1	4.0±0.1
Embossment center	P1	2.0±0.05	2.0±0.05	2.0±0.05
Overall tape thickness	T	0.6 max	0.6 max	0.6 max
Tape width	W	12.0±0.3	12.0±0.3	16.0±0.3
Reel width	W1	18.4 (max)	18.4 (max)	22.4 (max)
Reed width	W2	14.4 (max)	14.4 (max)	18.4 (max)

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)