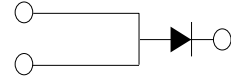


Feature

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


Circuit Diagram
Mechanical Characteristics

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any
- Weight : 0.003 ounce, 0.092 grams

Absolute maximum rating And Electrical characteristics @25°C

Parameter	Symbol	PSBD3T D40V20A	PSBD3T D45V20A	PSBD3T D60V20A	PSBD3T D80V20A	PSBD3TD 100V20A	PSBD3TD 150V20A	PSBD3TD 200V20A	Units	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	28	31.5	42	56	70	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	40	45	60	80	100	150	200	V	
Maximum Average Forward Rectified Current @ $T_L=100^{\circ}C$	$I_{F(AV)}$	20							A	
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	250							A	
Maximum Forward Voltage at 20A	V_F	0.55	0.7	0.85	0.95					V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	0.1			0.01				mA	
	$T_A=125^{\circ}C$	50			20					
Typical Thermal Resistance	$R_{\theta JA}$	60							$^{\circ}C/W$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+150							$^{\circ}C$	

Typical Characteristics

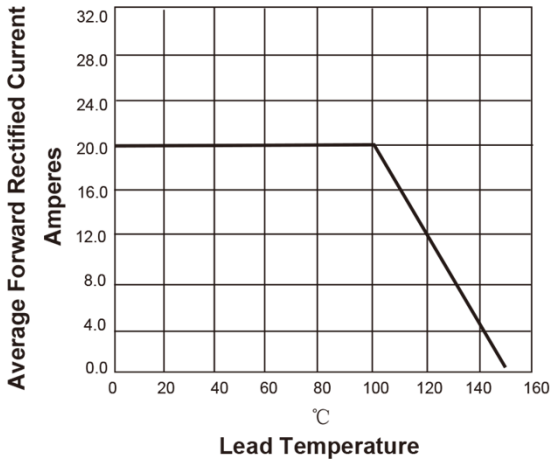


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

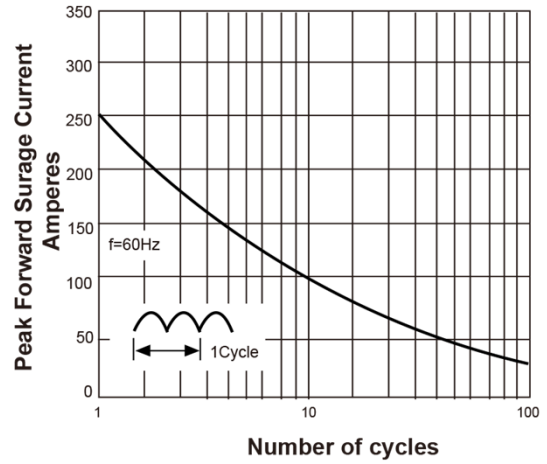


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

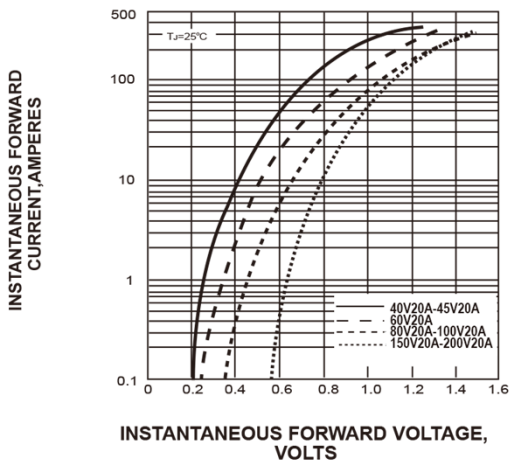


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

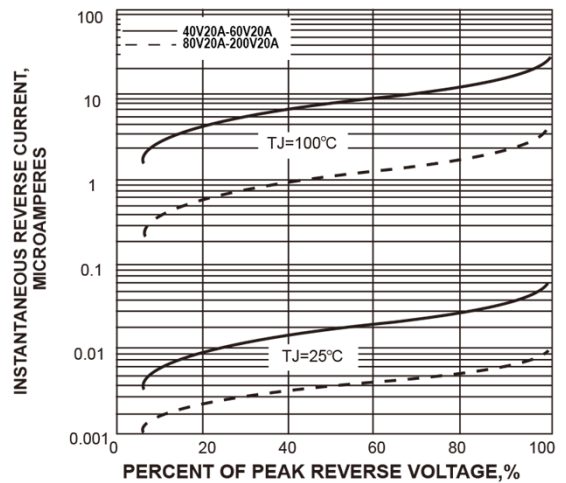
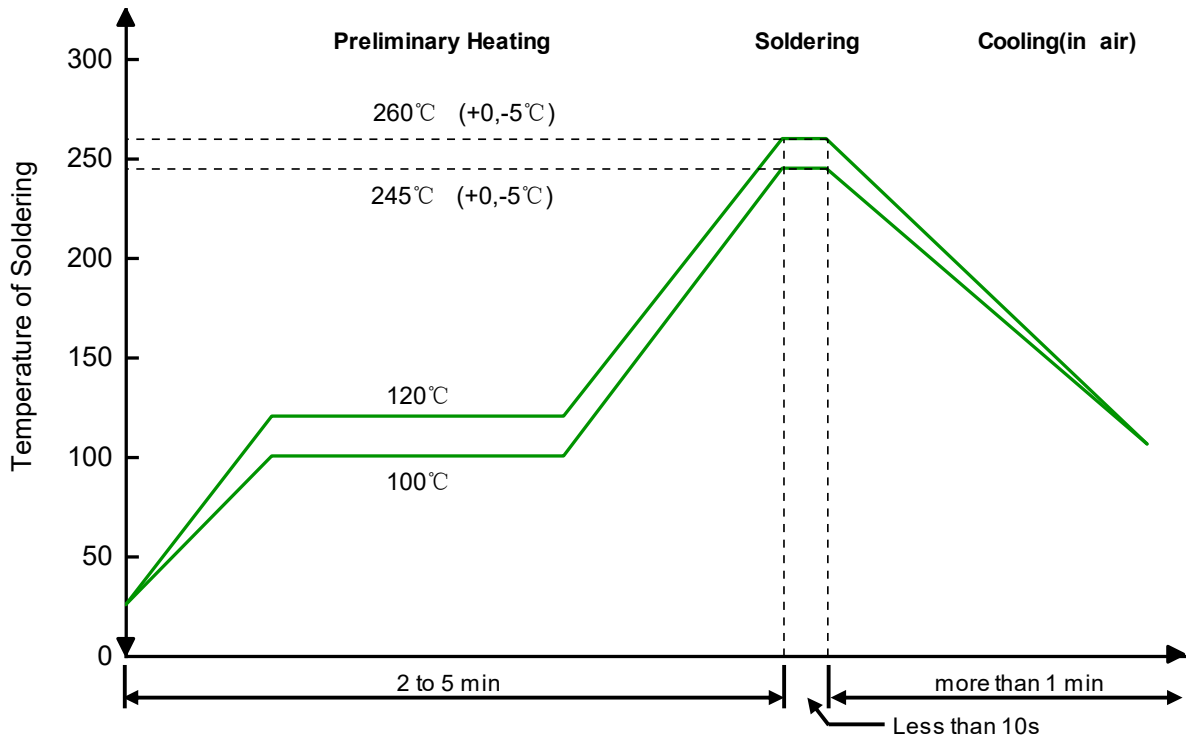


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Solder Reflow Recommendation

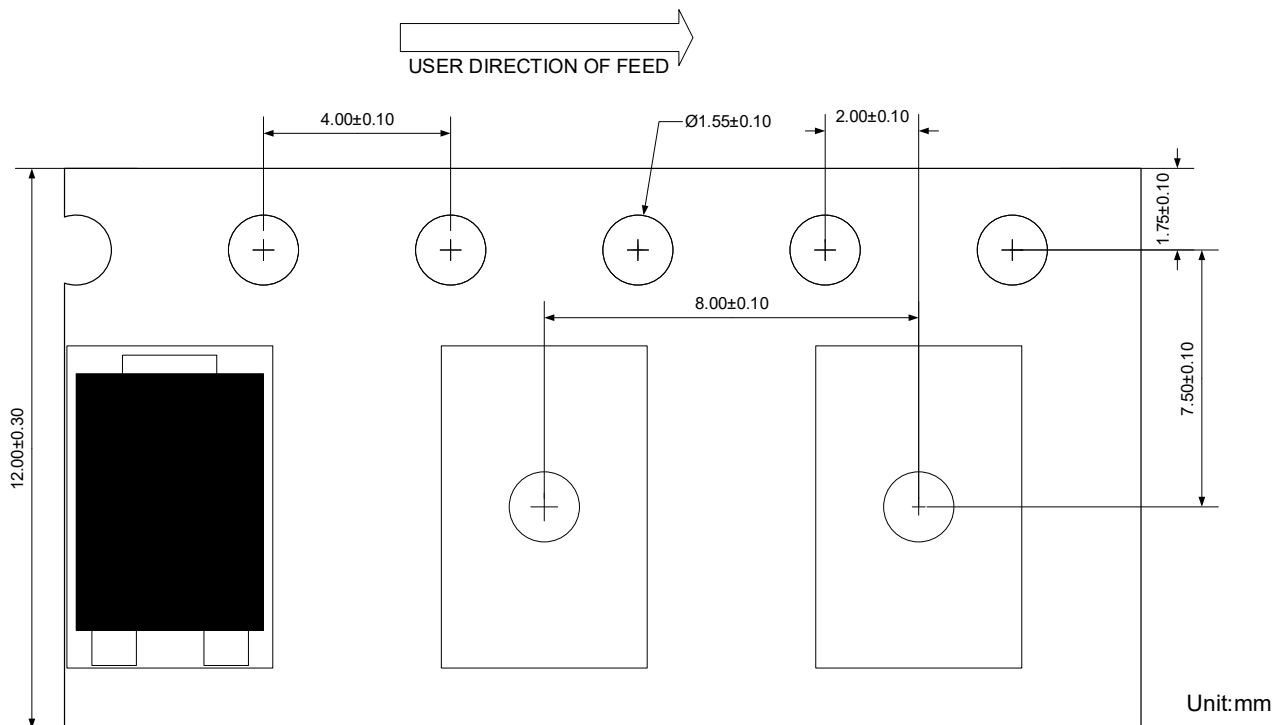


Remark: Pb free for 260°C; Pb for 245°C.

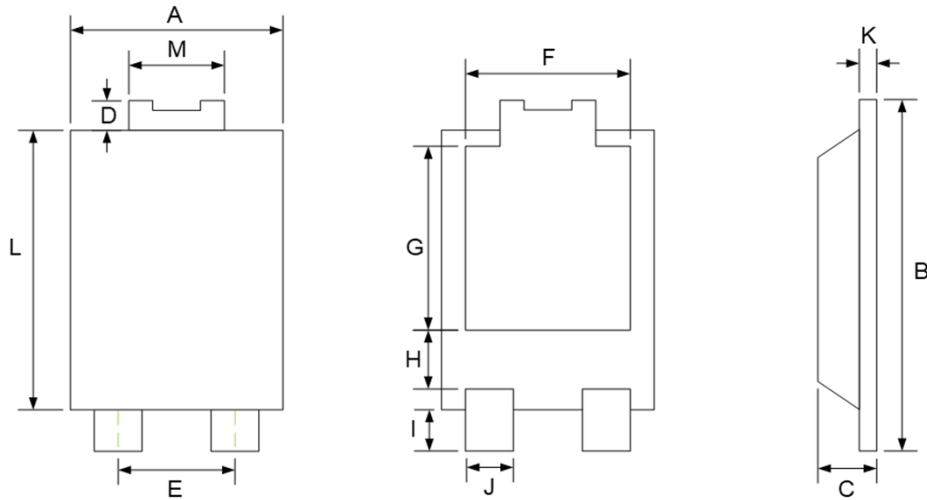
Ordering information

Device	Package	Reel	Shipping
PSBD3TDxxV20A	TO-277B	13"	5000 / Tape & Reel

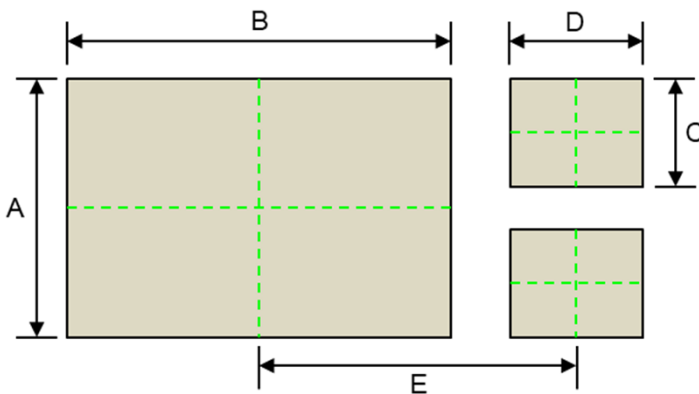
Load with information



Product dimension (TO-277B)




Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	3.90	4.10	0.154	0.161
B	6.40	6.60	0.252	0.260
C	1.00	1.20	0.039	0.047
D	0.45	0.70	0.018	0.028
E	1.75	1.95	0.069	0.077
F	3.00	3.30	0.118	0.130
G	3.40	3.70	0.134	0.146
H	1.00	1.40	0.039	0.055
I	0.50	0.70	0.020	0.028
J	0.80	1.00	0.031	0.039
K	0.20	0.40	0.008	0.016
L	5.30	5.50	0.209	0.217
M	1.70	1.90	0.067	0.075



Dim	Millimeters	Inches
A	3.60	0.142
B	5.35	0.211
C	1.50	0.059
D	1.85	0.073
E	4.30	0.169

Suggested PCB Layout Unit:mm


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