

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

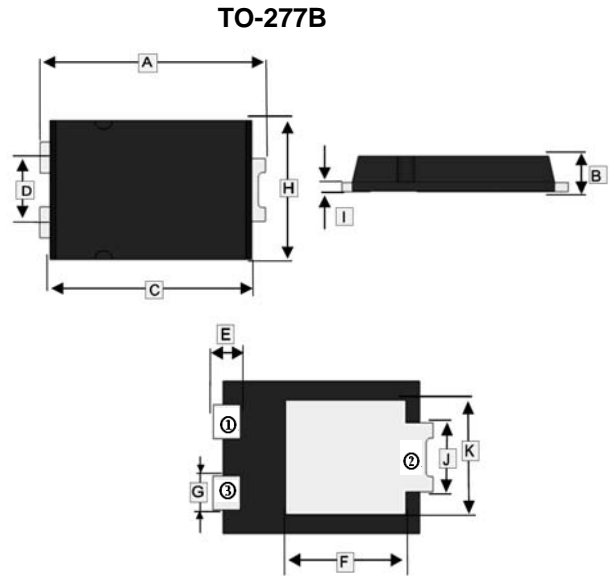
- Super long operating life
- Plastic package has Underwriters Laboratory Flammability Classification 94

MECHANICAL DATA

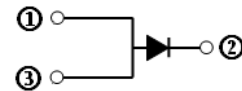
- Case: TO-277B molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: ANY

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-277B	3K	13 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.60	G	0.85	0.95
B	0.90	1.10	H	3.90	4.10
C	5.70	5.90	I	0.25 REF.	
D	1.80	1.95	J	1.75	1.85
E	0.75	0.85	K	2.95	3.05
F	3.45	3.60			



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, de-rate current by 20%.)

Parameters	Symbol	Part Number				Unit
		SMPB 1020	SMPB 1040	SMPB 1060	SMPB 10100	
Maximum Repetitive peak Reverse Voltage	V_{RRM}	20	40	60	100	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	100	V
Maximum Average Forward Rectified Current@ $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	10				A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275				A
Maximum Forward Voltage @ $I_{FM}=10\text{A}$	V_F	0.68	0.75	0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	0.5				mA
	$T_J=100^\circ\text{C}$	50	30			
Thermal Resistance Junction ¹	$R_{\theta JC}$	7				°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-55~125		-55~150		°C

Note:

1. FR4 Board. Heat sink size: 10*10*0.2mm.

CHARACTERISTIC CURVES

FIG.1 – PEAK FORWARD SURGE CURRENT

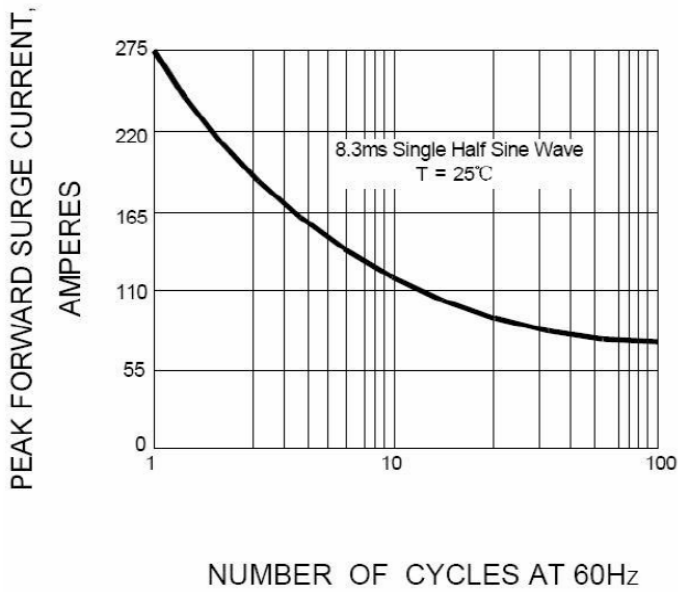


FIG.2 – FORWARD DERATING CURVE

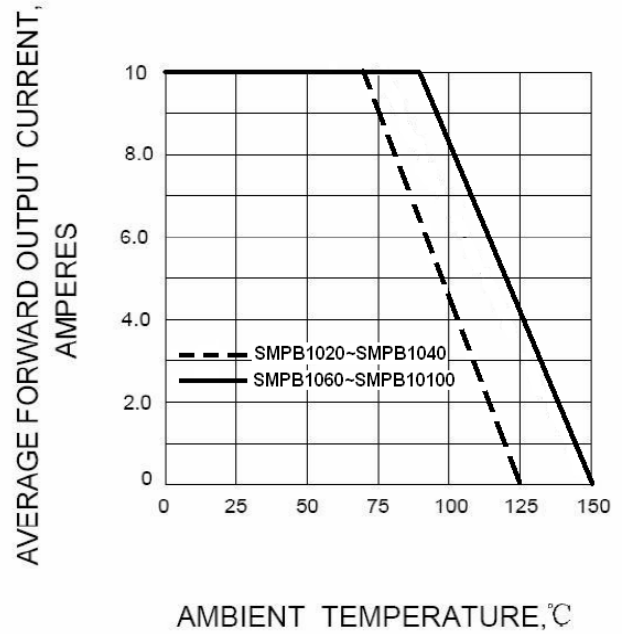


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

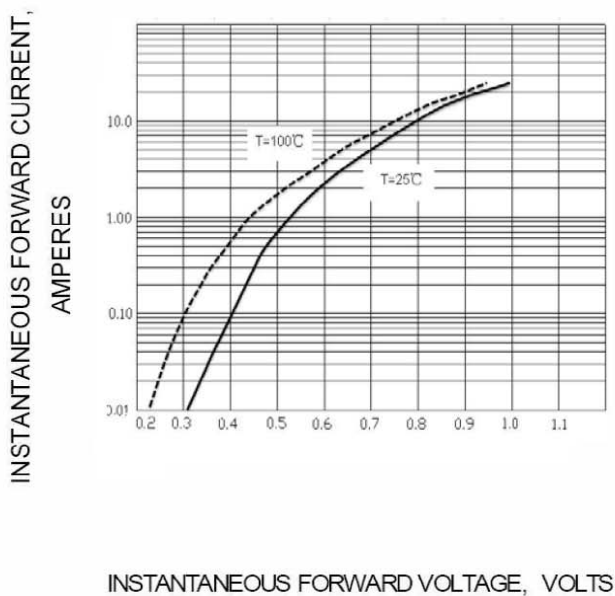


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

