

### Applications

- High speed switching and rectification
- Switching mode power supply

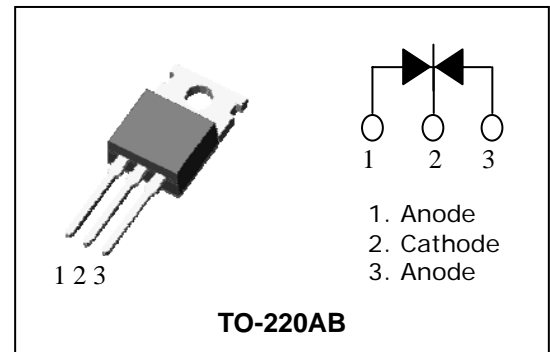
### Features

- Dual chip common cathode
- Low forward voltage & low reverse current
- Low switching loss

### Ordering Information

Type No.	Marking	Package Code
SDB20100P	SDB20100P	TO-220AB

### PIN Connection



### Absolute Maximum Ratings

[T<sub>C</sub>=25°C]

Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Average rectified output current	I <sub>O</sub>	20	A
Peak forward surge current (Non-repetitive 60Hz sine wave)	I <sub>FSM</sub>	120	A
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-45 ~ 150	°C

### Electrical Characteristics

[T<sub>C</sub>=25°C]

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	V <sub>FM</sub> <sup>1), 2)</sup>	I <sub>F</sub> =10A	-	-	0.85	V
Repetitive peak reverse current	I <sub>RRM</sub> <sup>1), 2)</sup>	V <sub>R</sub> =100V	-	-	20	μA
Thermal resistance	R <sub>th</sub>	Junction to case	-	-	3.0	°C/W

1) Per Diode

2) Pulse test : t<sub>p</sub> ≤ 380 μs, Duty cycle ≤ 2%

Electrical Characteristic Curves

Fig. 1  $I_F - V_F$ (Per Diode)

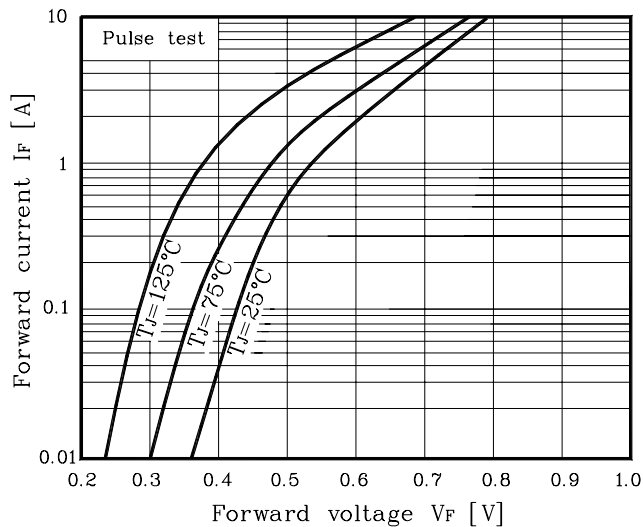


Fig. 2  $I_R - V_R$ (Per Diode)

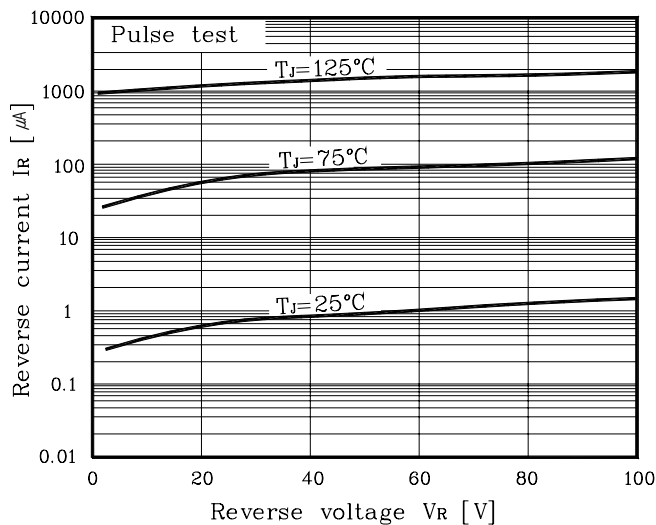


Fig. 3  $I_O - P_F$ (Per Diode)

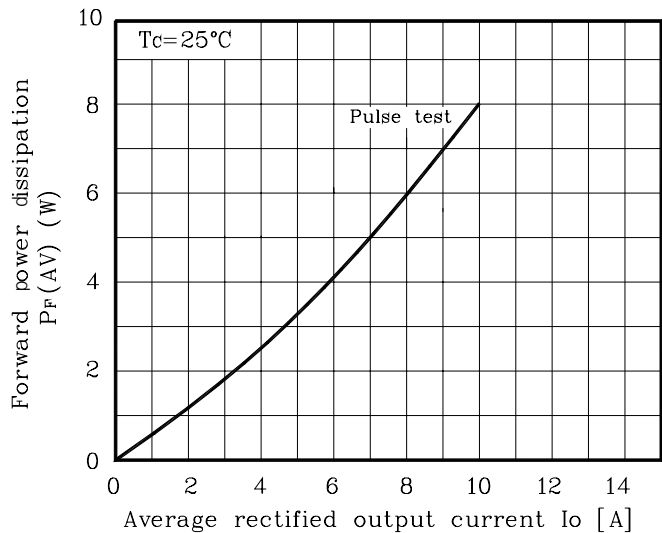


Fig. 4  $C_T - V_R$ (Per Diode)

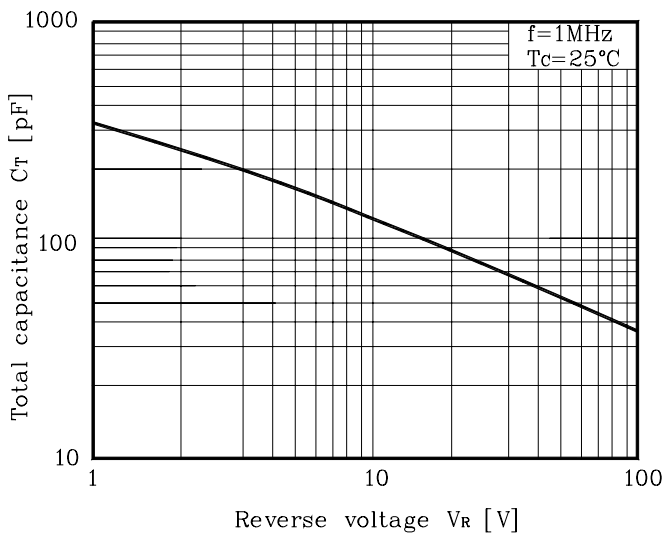


Fig. 5  $I_{FSM} - \text{Number of cycle}$ (Per Diode)

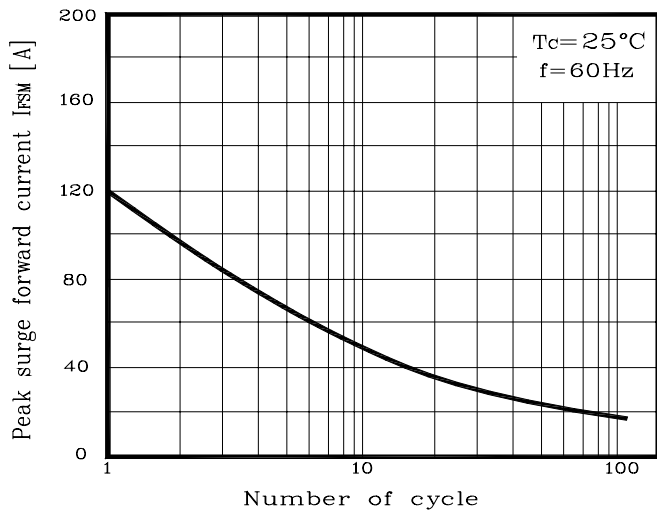
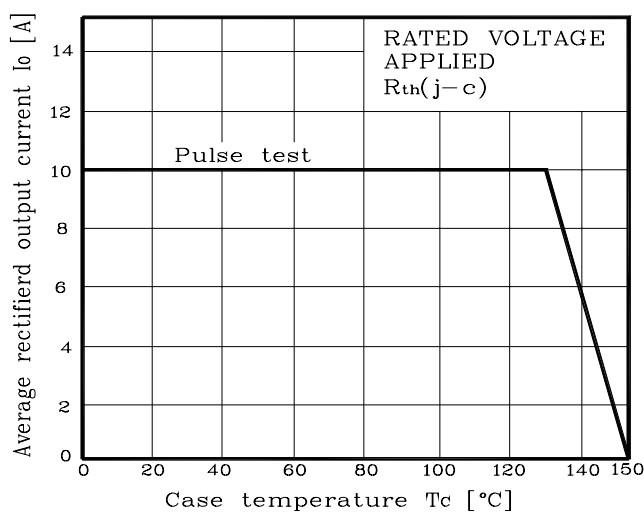
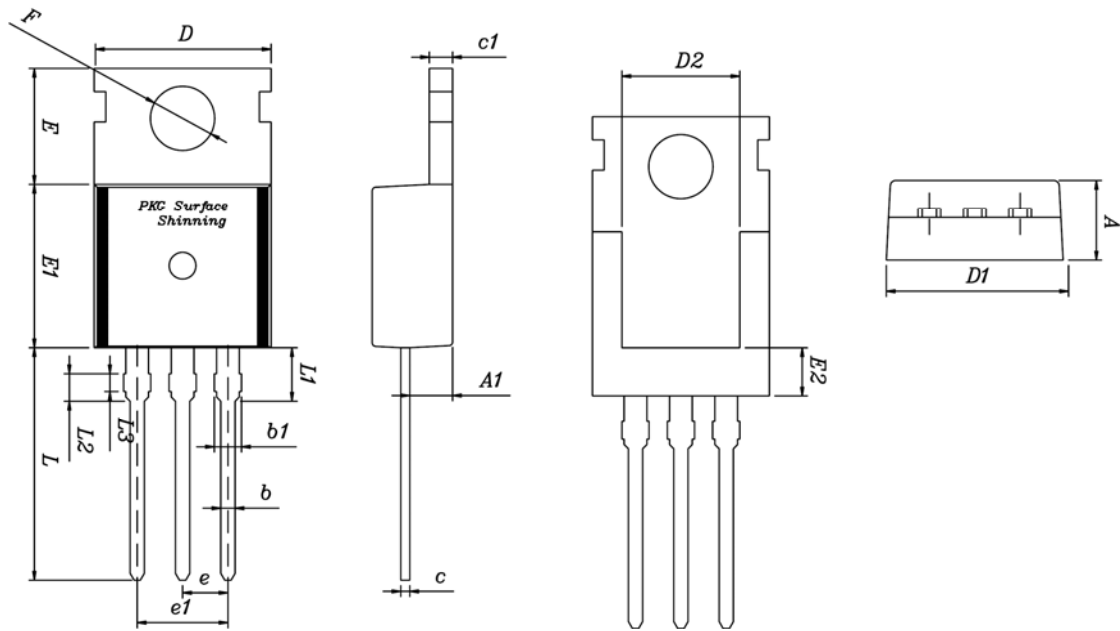


Fig. 6  $I_O$  derating -  $T_C$ (Per Diode)



Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	4.35	4.50	4.65	
A1	2.20	2.40	2.60	
b	0.65	0.80	0.95	
b1	1.42	1.52	1.62	
C	0.40	0.50	0.60	
C1	1.20	1.30	1.40	
D	9.80	10.00	10.20	
D1	9.85	10.00	10.15	
D2	6.40	6.60	6.80	
E	6.30	6.50	6.70	
E1	9.05	9.20	9.35	
E2	2.50	2.70	2.90	
F	3.50	3.60	3.70	
e	2.34	2.54	2.64	
e1	4.88	5.08	5.28	
L	12.68	13.08	13.48	
L1	2.80	3.00	3.20	
L2	1.49	1.54	1.59	
L3	0.95	1.00	1.05	

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