



SDB1040PI

Schottky barrier diode

Applications

- Switching mode power supply application
- Converter & chopper application

Features

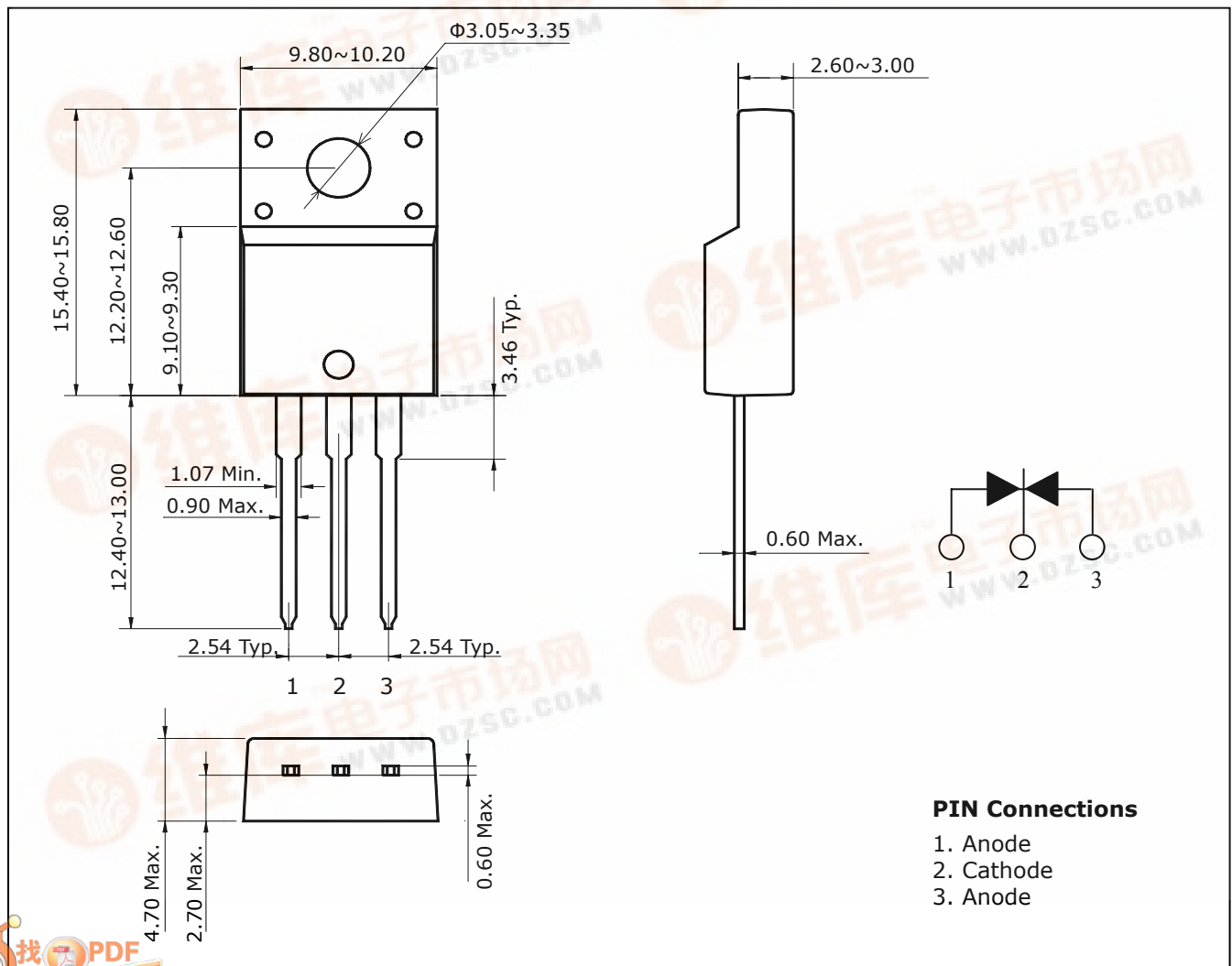
- Low forward voltage: $V_{FM}=0.55V$ Max.
- Low reverse current: $I_{RRM}=0.5mA$ Max.
- Low switching loss

Ordering Information

Type No.	Marking	Package Code
SDB1040PI	SDB1040PI	TO-220F-3L

Outline Dimensions

unit : mm



SDB1040PI

Absolute Maximum Ratings

Ta=25°C

Characteristic	Symbol	Rating	Unit
Repetitive peak reverse voltage	V _{RRM}	40	V
Average rectified output current	I _O	10	A
Peak surge forward current (Non-repetitive 60Hz sine wave)	I _{FSM}	60	A
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	V _{FM} ¹⁾	I _{FM} =5A ²⁾	-	-	0.55	V
Repetitive peak reverse current	I _{RRM} ¹⁾	V _{RRM} =40V	-	-	0.5	mA
Junction capacitance	C _J	V _R =10V, f=1.0MHz	-	200	-	pF
Thermal resistance	R _{th(j-c)}	Junction to ambient	-	-	62.5	°C/W
		Junction to case	-	-	4.0	

1) per each chip

2) Pulse test : t_p ≤ 380 μs, Duty cycle ≤ 2%

Electrical Characteristic Curves (Per each cell)

Fig.1 $I_F - V_F$

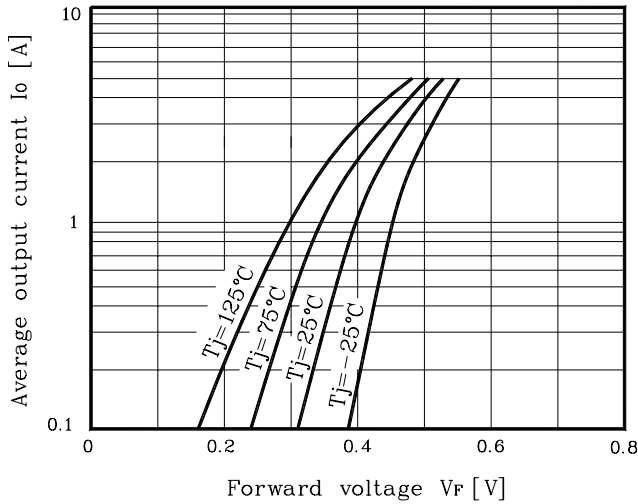


Fig. 2 $I_R - V_R$

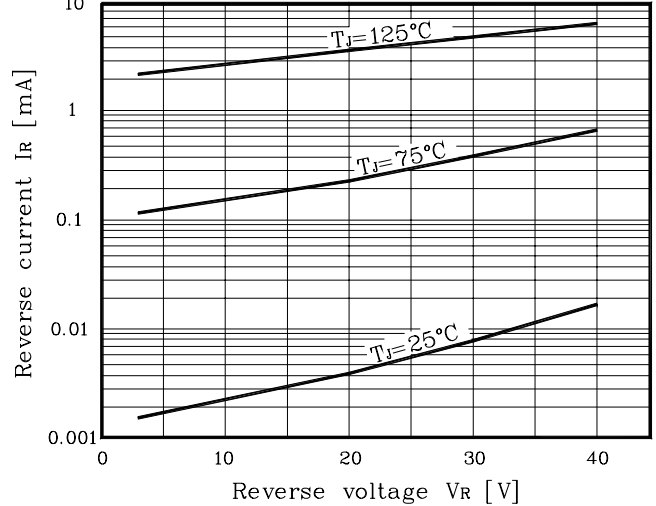


Fig. 3 $P_F - I_O$

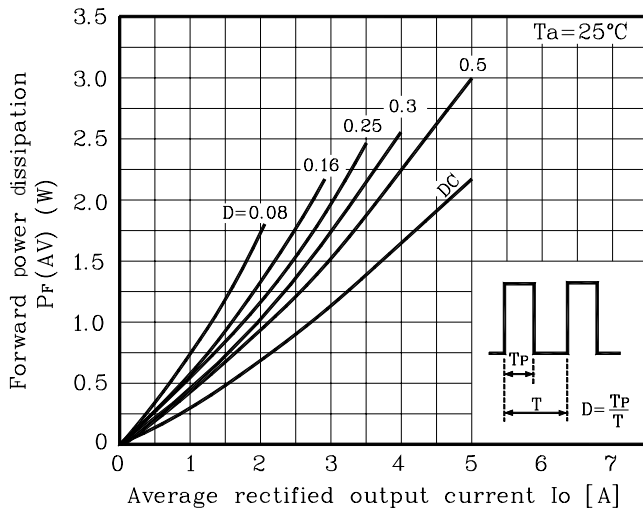


Fig. 4 $C_J - V_R$

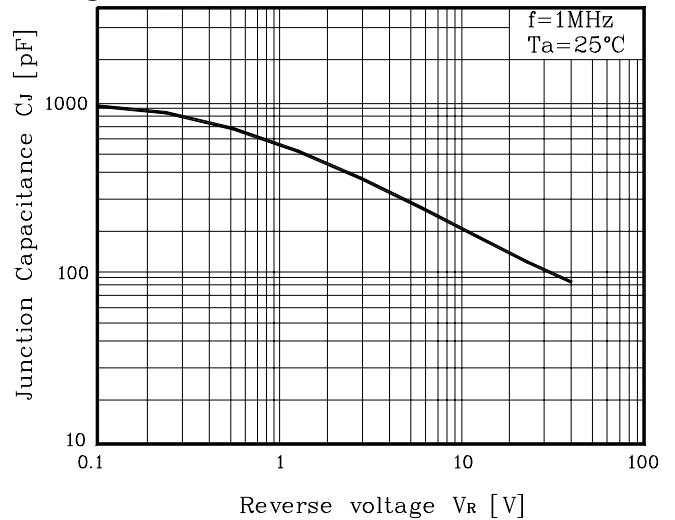


Fig. 5 $I_{FSM} - \text{Number of cycle}$

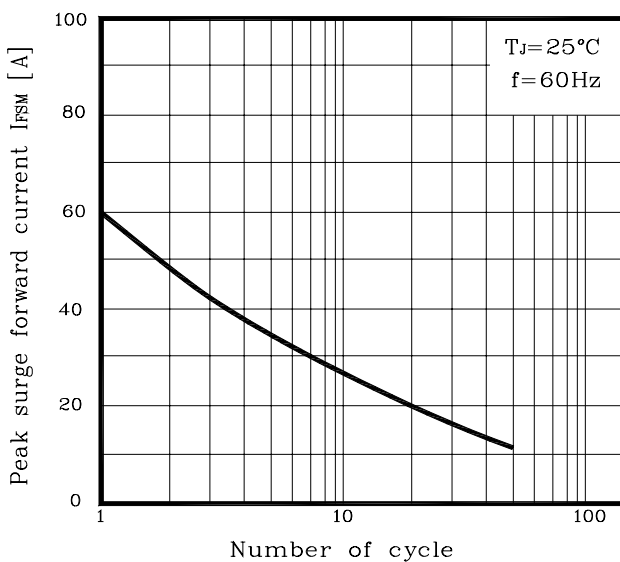
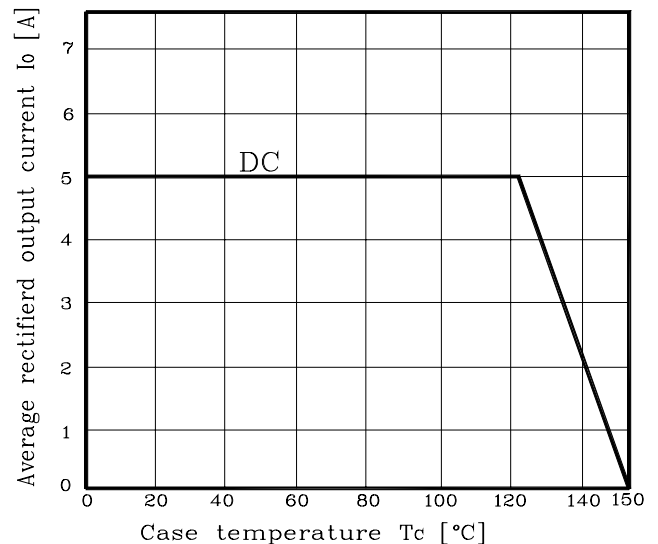


Fig. 6 I_O derating - T_C



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