

Applications

- Switching mode power supply application
- Converter & chopper application

Features

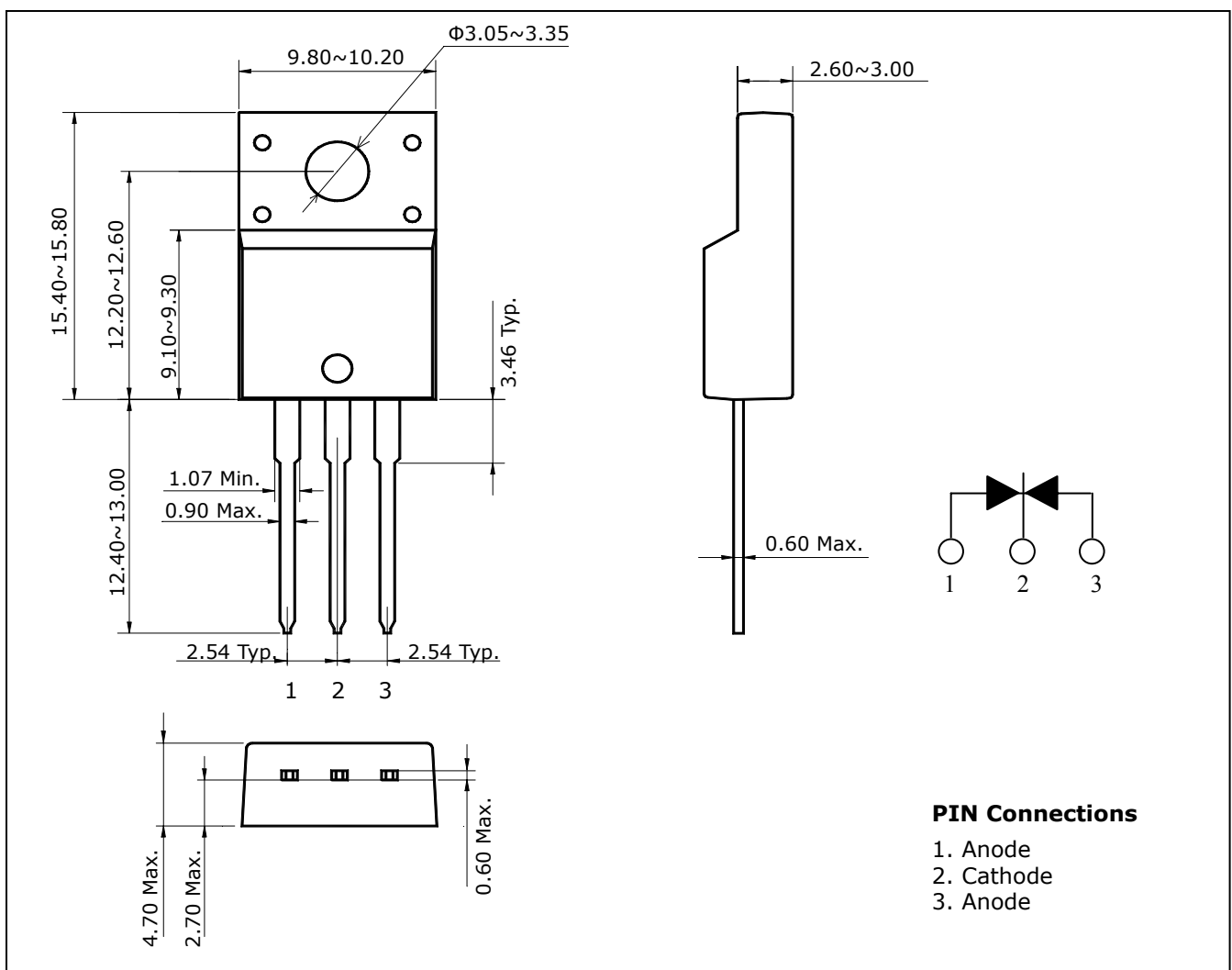
- Low forward voltage: $V_{FM}=0.55V$ Max.
- Low reverse current: $I_{RRM}=0.5mA$ Max.
- Low switching loss

Ordering Information

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

Outline Dimensions

unit : mm



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 : $t_p \leq 380 \mu s$, Duty cycle $\leq 2\%$

Electrical Characteristic Curves (Per each cell)

Fig.1 $I_F - V_F$

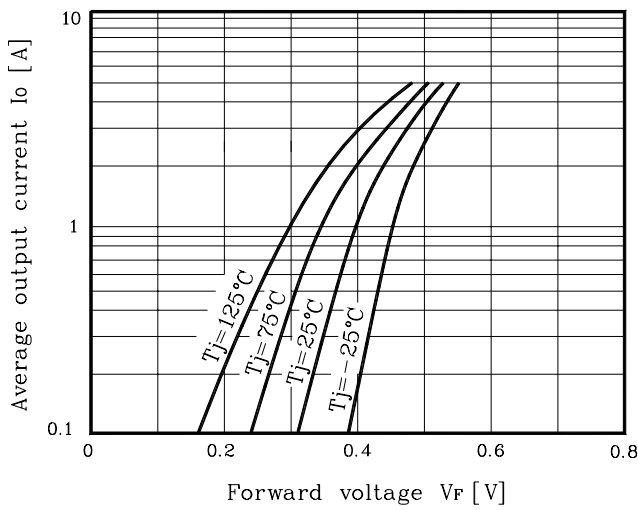


Fig. 2 $I_R - V_R$

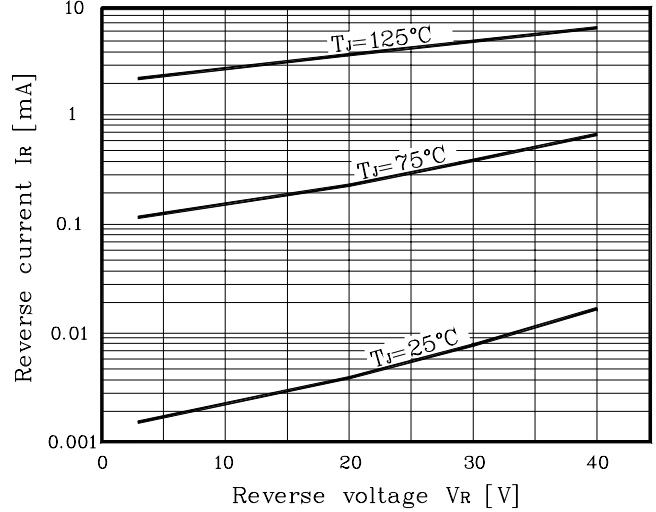


Fig. 3 $P_F - I_o$

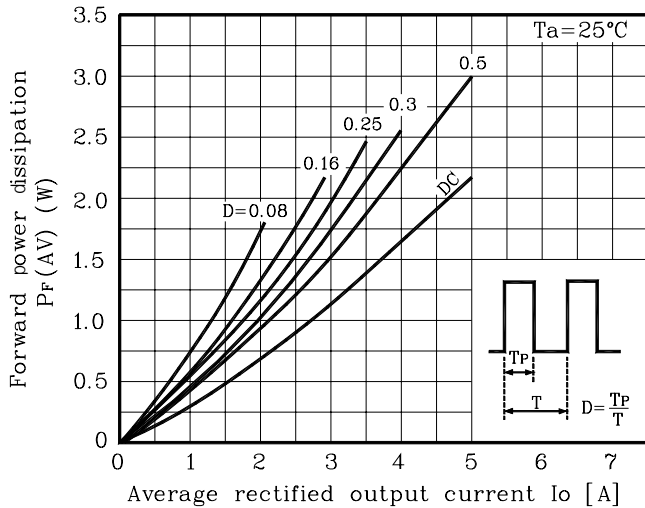


Fig. 4 $C_J - V_R$

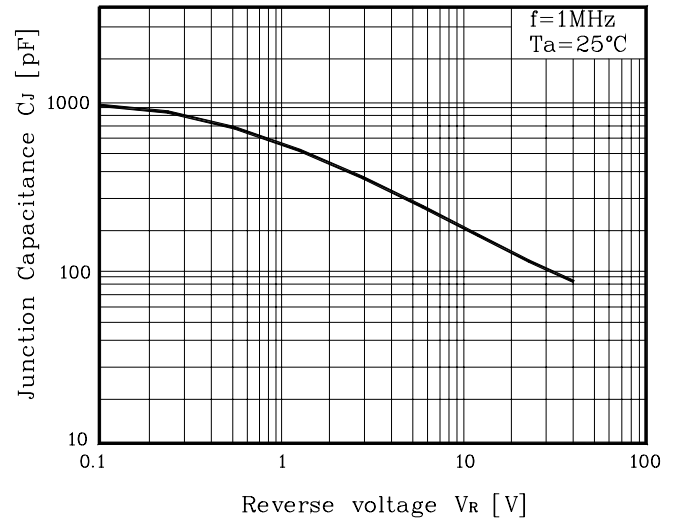


Fig. 5 $I_{FSM} - \text{Number of cycle}$

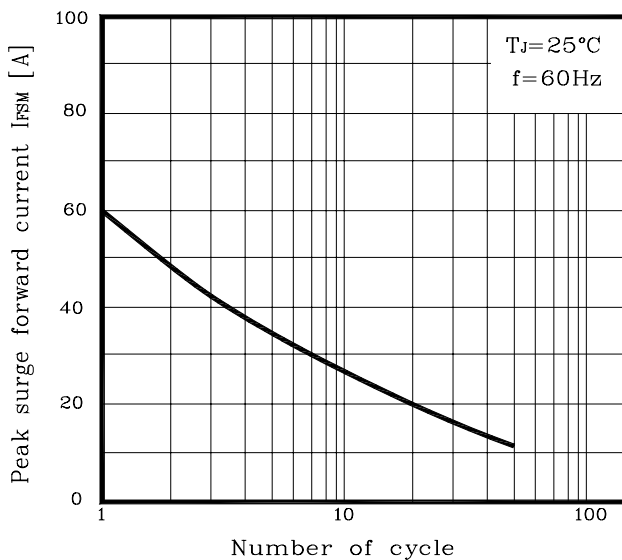
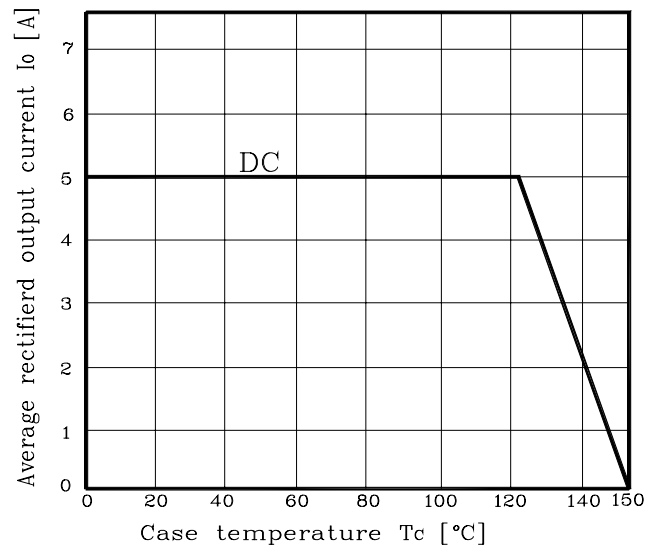


Fig. 6 I_o derating - T_c



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