

**Applications**

- Low voltage, high frequency inverters
- Free wheeling and polarity protection

**Features**

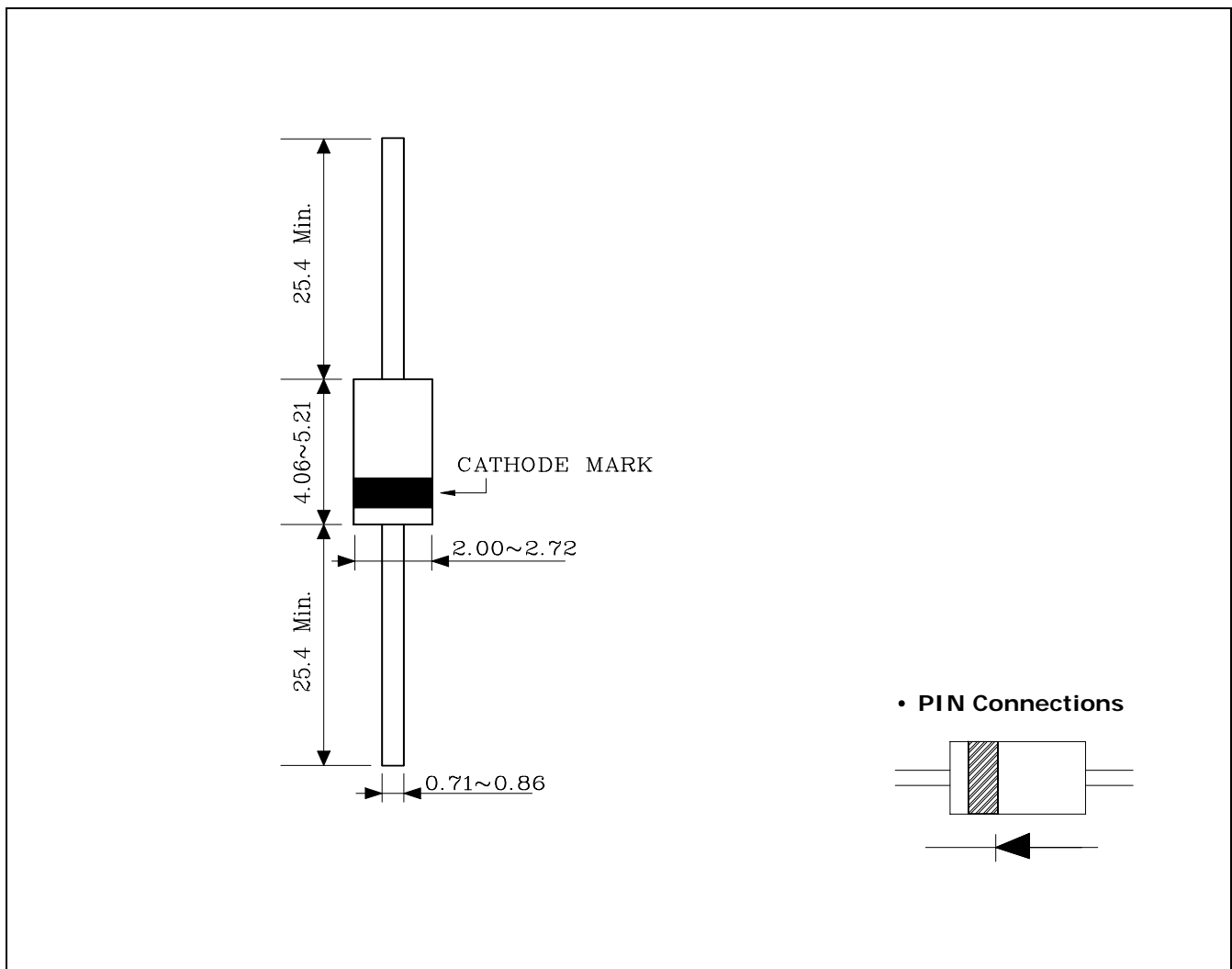
- Guardring for overvoltage protection
- Low forward voltage, Low reverse current:  $V_{FM}=0.55V$  Max.  $I_{RRM}=0.5mA$  Max.
- Low power loss and high efficiency

**Ordering Information**

Type No.	Marking	Package Code
SDB240R	SB240	DO-41

**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	$I_O$	2	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)

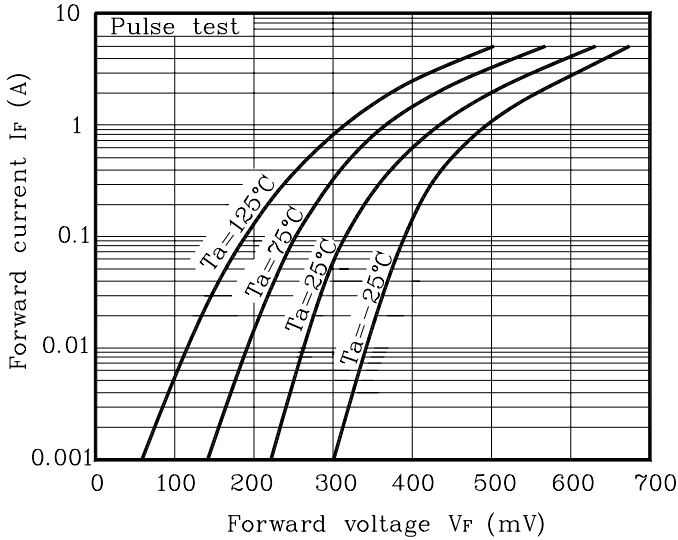
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Peak forward voltage	$V_{FM}^{1)}$	$I_F=2A$	-	-	0.55	V
Repetitive peak reverse current	$I_{RRM}$	$V_R=40V$	-	-	0.5	mA
Total capacitance	$C_T$	$V_R=4V, f=1.0MHz$	-	100	-	pF
Thermal resistance	$R_{th}^{2)}$	Junction to ambient	-	50		°C/W

1) Pulse test :  $t_p \leq 380 \mu s$ , Duty cycle  $\leq 2\%$ 

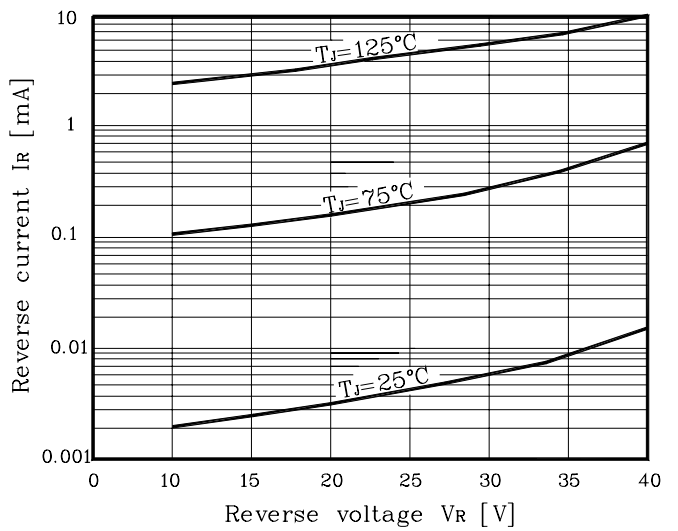
2) Tested under junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

**Electrical Characteristic Curves**

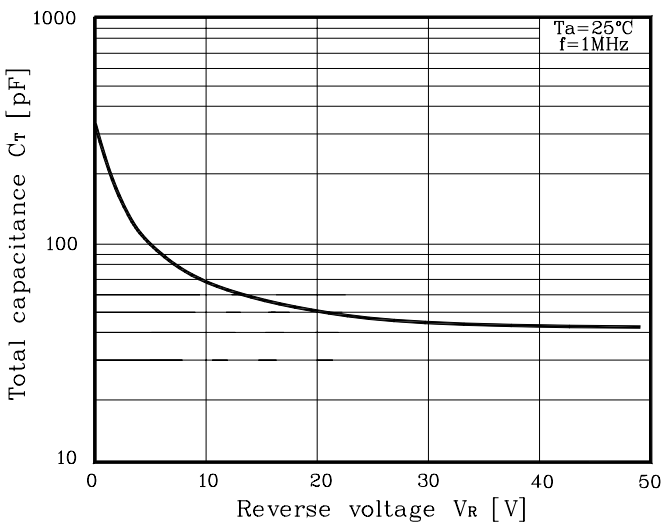
**Fig. 1  $I_O - V_F$**



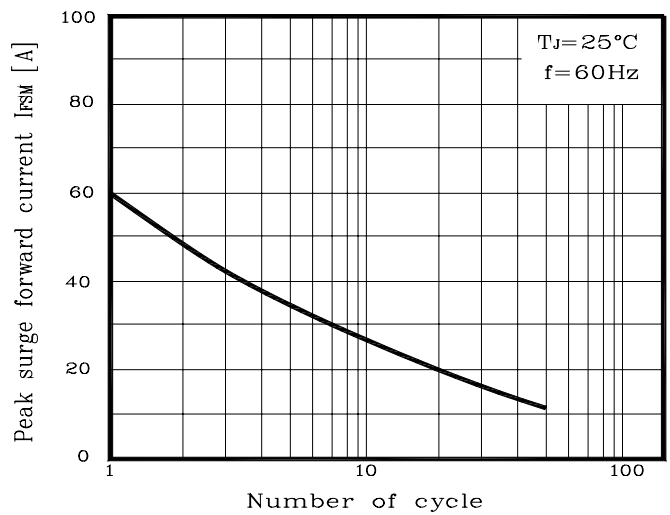
**Fig. 2  $I_R - V_R$**



**Fig. 3  $C_T - V_R$**



**Fig. 4  $I_{FSM} - \text{Number of cycle}$**



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