

Features

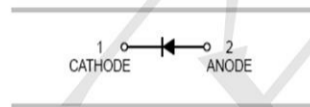
- General rectification
- Low V_F ; Low I_R
- High reliability

Applications

- surface mount schottky barrier rectifier

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Units
DC Reverse Voltage	V_{RRM}	40	V
Mean Rectifying Current	I_O	200	mA
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I_{FSM}	1	A

Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	TPB02A40-323	TPB02A40-523	TPB02A40-1006	Units
Power Dissipation	P_D	200	150	100	mW
Typical Thermal Resistance per leg	$R_{\theta JA}^*$	500	667	1000	$^\circ\text{C/W}$
Thermal resistance junction to Lead	$R_{\theta JL}^*$	323	658	987	$^\circ\text{C/W}$
Thermal resistance junction to case	$R_{\theta JC}^*$	276	421	631	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-40 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150			$^\circ\text{C}$

* Part mounted on FR-4 board with recommended pad layout

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=10\text{mA}$	-	-	0.39	V
		$I_F=100\text{mA}$	-	-	0.55	V
Reverse Current	I_R^{**}	$V_R=10\text{V}$	-	-	1	μA
		$V_R=40\text{V}$	-	-	10	μA
Capacitance between terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	22	50	pF

*Pulse width $\leq 380\text{ }\mu\text{s}$, Duty cycle $< 2\%$
**pulse test, $t_p \leq 5\text{ms}$

Typical Electrical Characteristic Curves

FIG 1.TYPICAL REVERSE CHARACTERISTIC

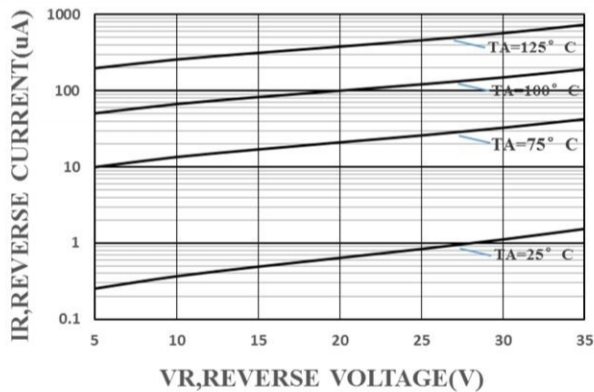


FIG 2.TYPICAL FORWARD CHARACTERISTIC

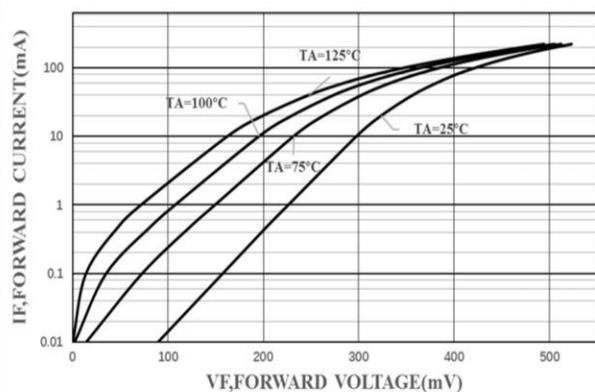


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

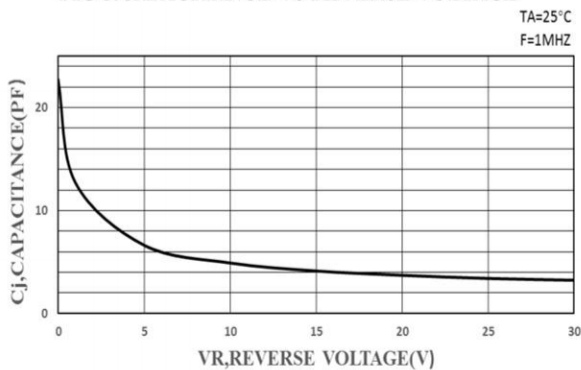
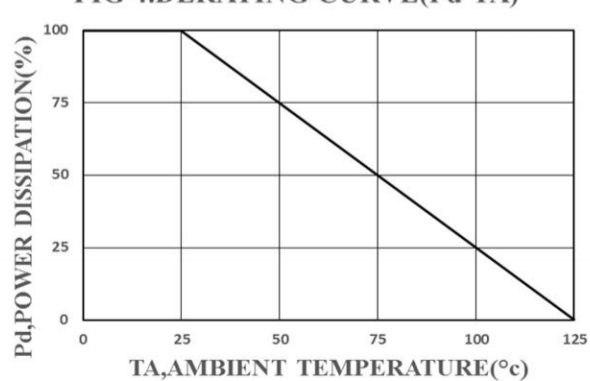
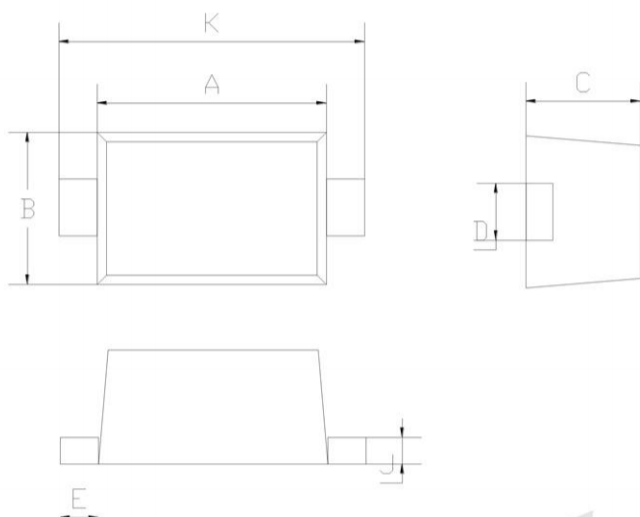


FIG 4.DERATING CURVE(P_d - T_A)



Outline Drawing - SOD-523 (unit: mm)



SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Mounting Pad Layout-SOD523 (unit: mm)

