Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

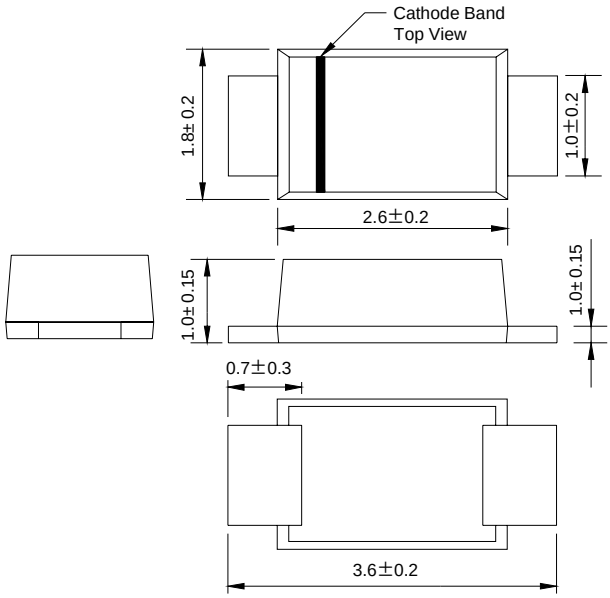
STPS0520Z – STPS05200Z

1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 20A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

SOD - 123FL



Dimensions in millimeters

Mechanical Data

- Case: SOD-123FL, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.01 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	STPS 0520Z	STPS 0530Z	STPS 0540Z	STPS 0550Z	STPS 0560Z	STPS 0580Z	STPS 05100Z	STPS 05150Z	STPS 05200Z	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @T_L = 75°C	I_O	1.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	20									A
Forward Voltage @I_F = 1.0A	V_{FM}	0.55			0.70		0.85		0.95		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.1 20									mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	28 88									°C/W
Typical Junction Capacitance	C_j	110					30		110		pF
Operating Temperature Range	T_j	-55 to +150									°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

Note: 1. Mounted on P.C. Board with 5.0mm^2 copper pad area.

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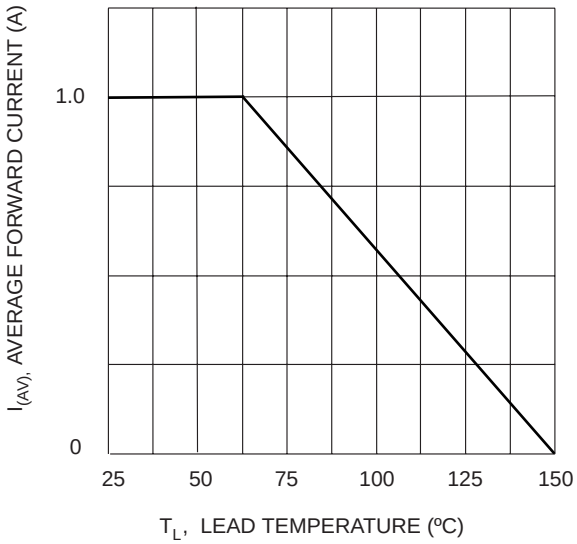

Fig. 1 Forward Current Derating Curve

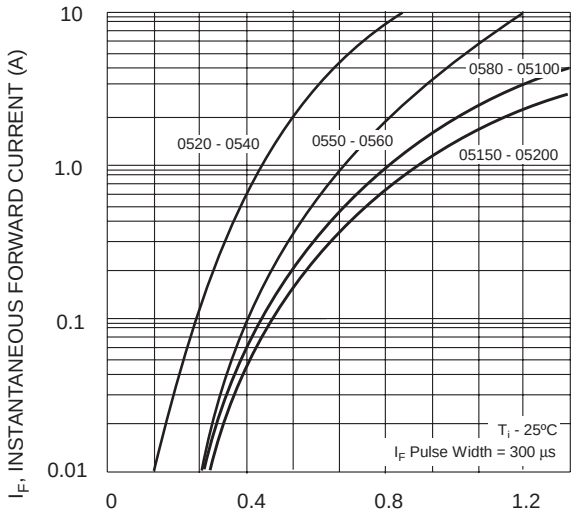

Fig. 2 Typ. Forward Characteristics

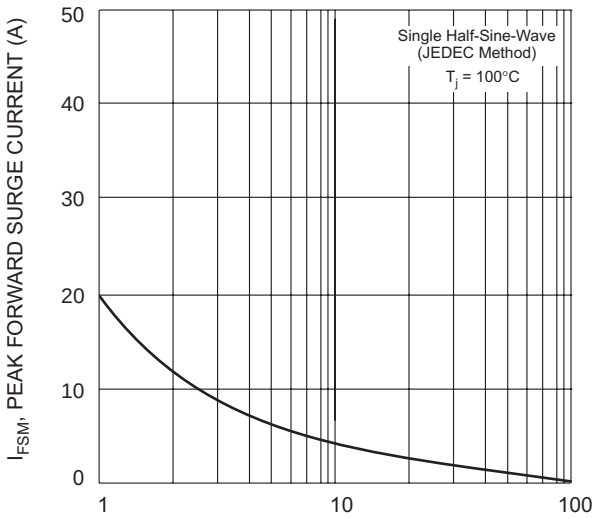

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

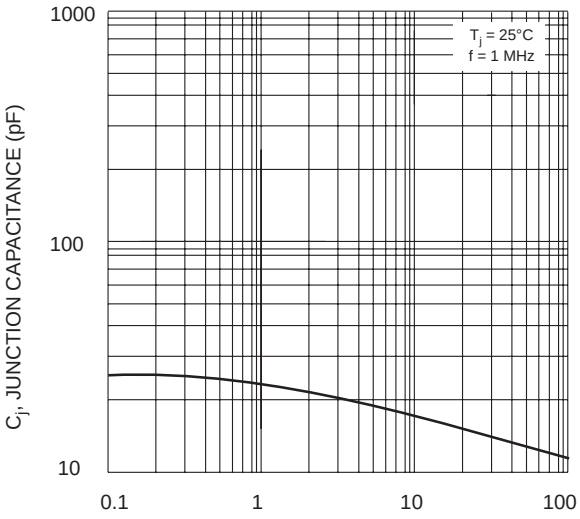

Fig. 4 Typical Junction Capacitance

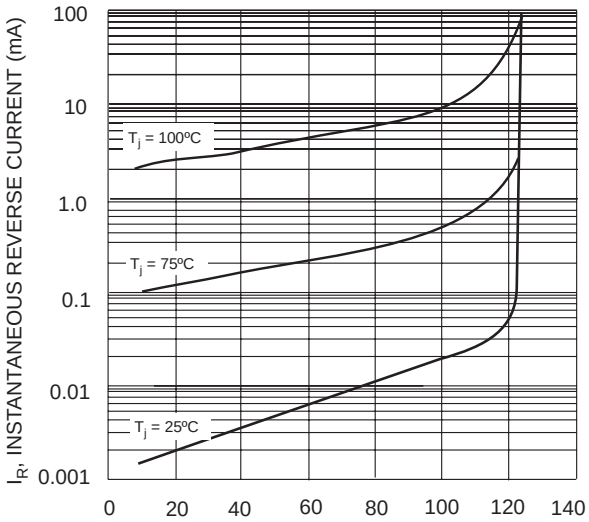

Fig. 5 Typical Reverse Characteristics