

Schottky Barrier Rectifiers

Reverse Voltage - 20 to 200 V

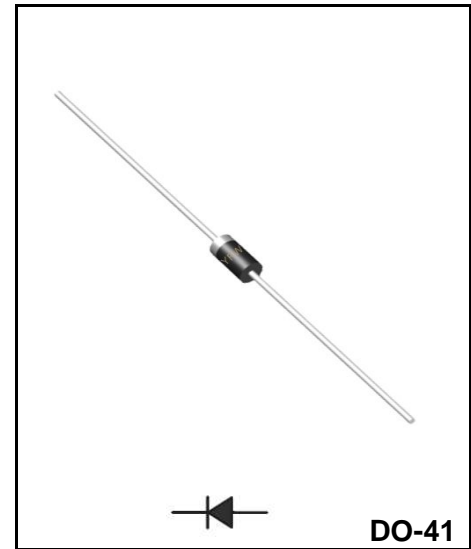
Forward Current - 1 A

FEATURES

- ◆ Guardring for overvoltage protection
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C /10 seconds at terminals
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-41
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.25g / 0.0088oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	SB120	SB140	SB160	SB180	SB1100	SB1150	SB1200	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30.0							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.55	0.70	0.85	0.95				V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	I_R	0.5 50			0.05 10			mA	
Typical Thermal Resistance	$R_{\theta JA}$	65							$^\circ\text{C/W}$
Operating junction temperature range	T_j	-55 ~ +125			-55 ~ +150				$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150							$^\circ\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

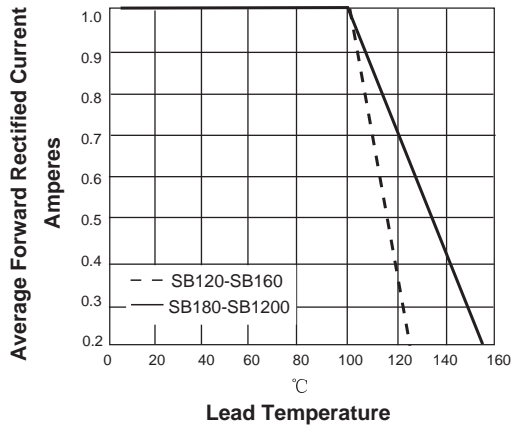


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

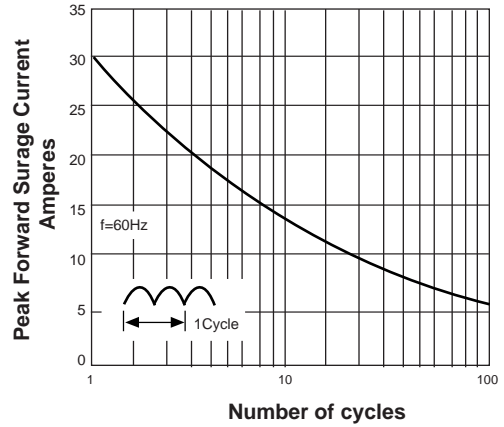


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

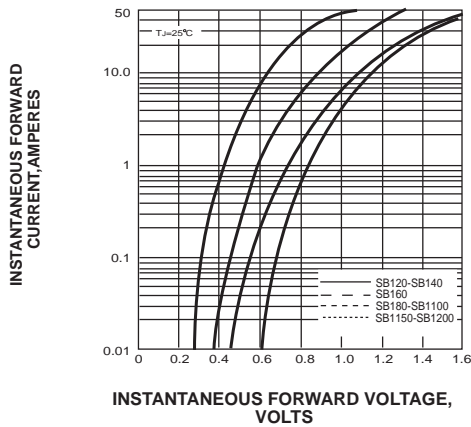
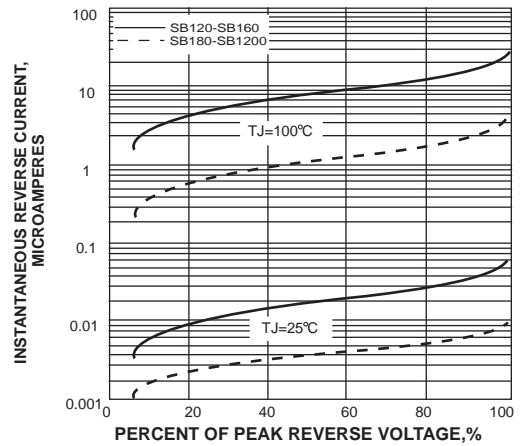


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

Package	Packing Description	Packing Quantity
DO-41	bulk	1000PCS/Inner Box 25000PCS/Carton
	ammo pack	5000PCS/Inner Box 50000PCS/Carton

Package Dimensions

DO-41

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	4.10	5.20	0.166	0.205
B	2.00	2.70	0.080	0.107
C	0.60	0.70	0.024	0.028
D	25.4	-	1.00	-

Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.