

1A,20-100V Schottky Barrier Rectifiers

Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



DO-41(DO-204AL)

Applications

- Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	SB120	SB130	SB140	SB150	SB160	SB170	SB180	SB190	SB1B0	Unit	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V	
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V	
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V	
Maximum average forward rectified current	I _{F(AV)}	1									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	40					30					A
Operating junction temperature range	T _J	-55 to +125				-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150									°C	

Thermal-Mechanical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{θJA}	52	°C /W
Thermal Resistance, Junction to Case	R _{θJC}	15	°C /W
Thermal Resistance, Junction to Lead	R _{θJL}	13	°C /W



SB120 thru SB1B0

GOOD-ARK Electronics

Electrical Specifications (T_A=25°C unless otherwise noted)

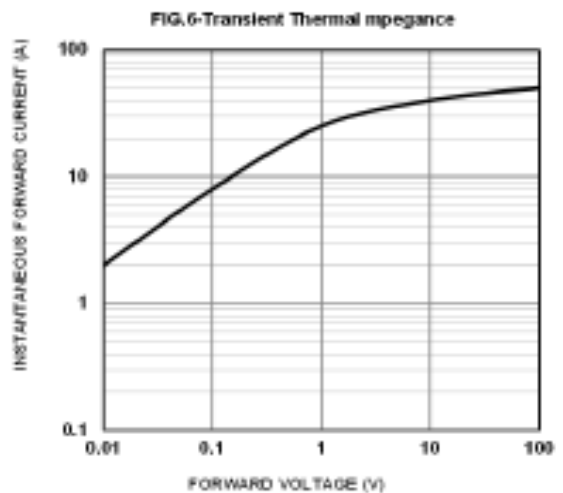
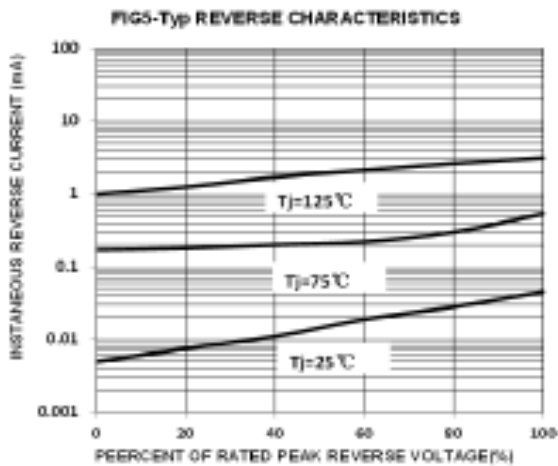
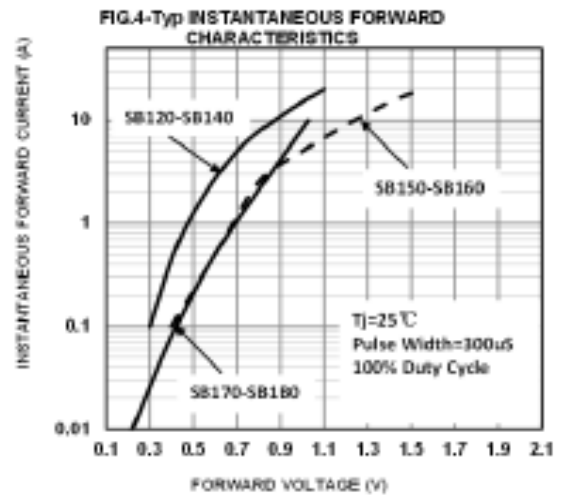
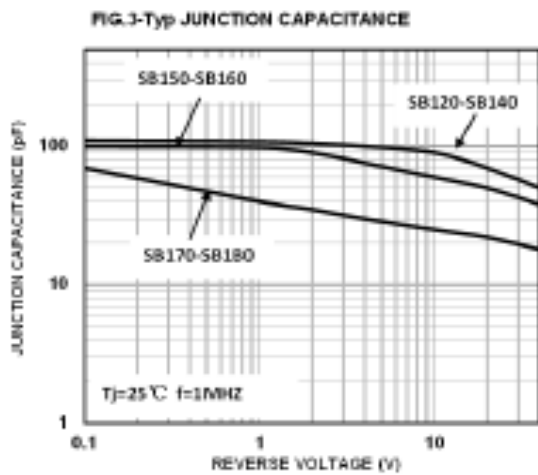
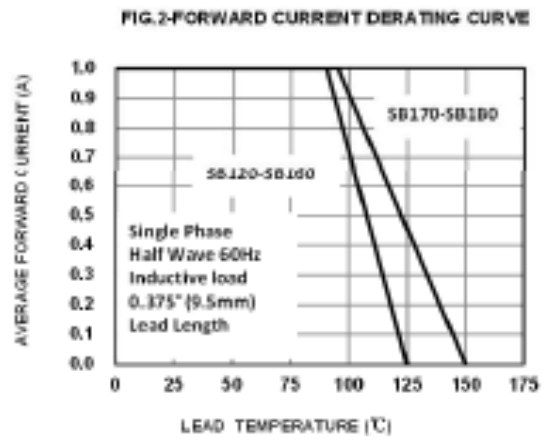
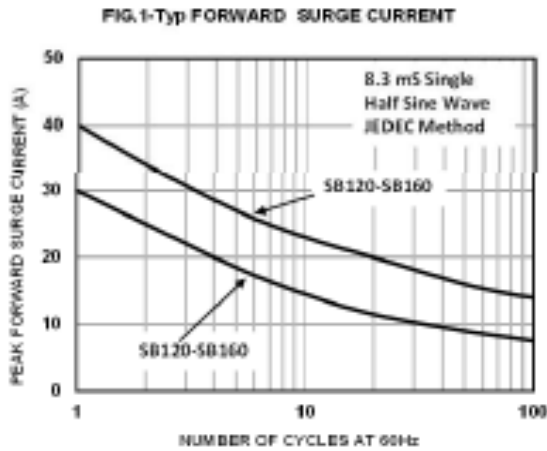
Parameter	Symbol	Test Conditions	SB120	SB130	SB140	SB150	SB160	SB170	SB180	SB190	SB1B0	Unit
Forward Drop Voltage	V _F	I _F =1A	0.50			0.70		0.79				V
Reverse leakage current @V _R	I _R	T _J =25°C	0.50									mA
		T _J =125°C	10				5					
Typical junction capacitance	C _J	4.0 V 1 MHz	110			100		80				pF

Note:

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

Ratings and Characteristics Curves

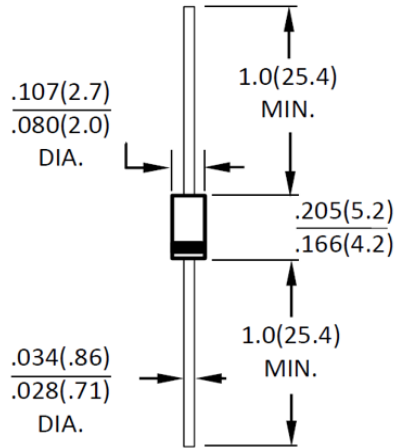
($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

in inches (millimeters)

DO-41(DO-204AL)



Dimensions in inches and (millimeters)

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.11.27	Modify document format

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