

# 1A Schottky Barrier Rectifiers

## PRODUCT SUMMARY

Voltage ratings available from 20 Volts to 60 Volts

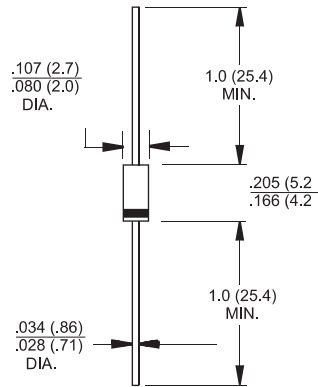
**DO-204AL/DO-41**

## FEATURES

- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## MECHANICAL DATA

- Case : JEDEC DO-204AL(DO-41) molded plastic
- Polarity : Color band denotes cathode
- Weight : DO-41 - 0.012 ounce, 0.33 gram
- Mounting position : Any



Dimensions in inches and (millimeters)

 **Pb-free; RoHS-compliant**

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Rating at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60 Hz, resistive or inductive load.
- For capacitive load, derate current by 20%

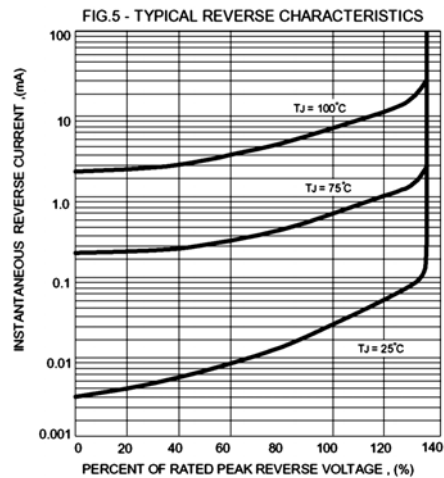
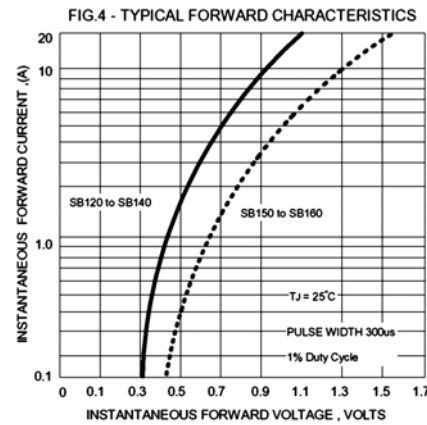
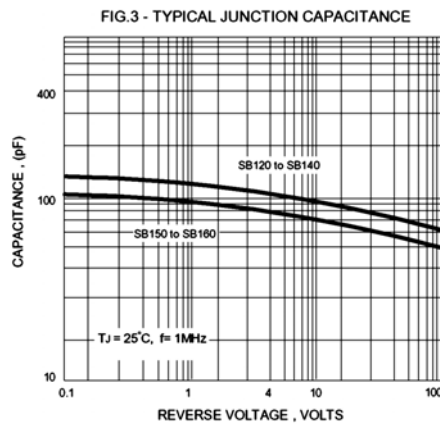
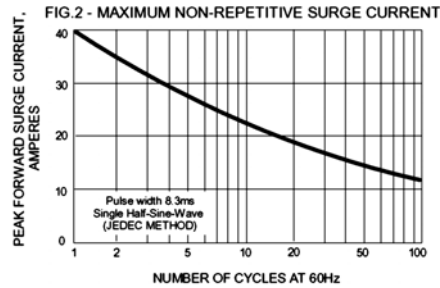
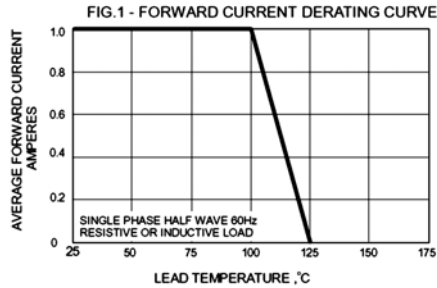
Parameter	Symbols	SB120	SB130	SB140	SB150	SB160	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	Volts
Maximum average forward rectified current .375" (9.5mm) lead lengths @ $T_J=100^\circ\text{C}$	$I_{(AV)}$	1.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	40.0					Amps
Maximum forward voltage at 1.0A DC	$V_F$	0.50			0.70		Volts
Maximum DC reverse current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=100^\circ\text{C}$	$I_R$	0.5			10.0		mA
Typical junction capacitance (Note 1)	$C_J$	110			80		pF
Typical thermal resistance (Note 2)	$R_{JUL}$	15					$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +125					$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance, junction to lead.

## RATINGS AND CHARACTERISTIC CURVES

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



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