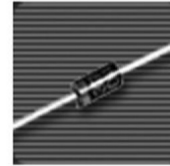


Features

- 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

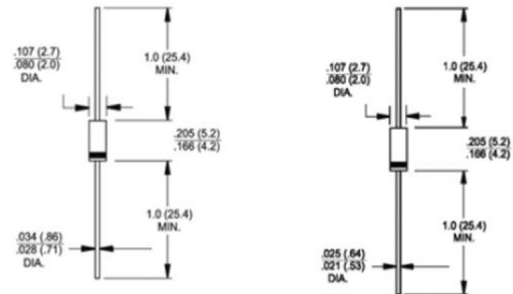


Mechanical Data

- Case: JEDEC DO-204AL(DO-41)/A-405 molded plastic
- Polarity: Color band denotes cathode end
- Weight: DO-41-0.012 ounce, 0.33 gram
A-405-0.008 ounce, 0.22 gram
- Mounting position: Any

DO-204AL (DO-41)

A-405



Note: Lead diameter is 0.025(0.64)/0.021(0.53) for suffix "S" part numbers

MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%

PARAMETER	SYMBOL	SB120	SB130	SB140	SB150	SB160	Units
Maximum repetitive peak reverse voltage	VRRM	20	30	40	50	60	V
Maximum RMS voltage	VRMS	14	21	28	35	42	V
Maximum DC blocking voltage	VDC	20	30	40	50	60	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at T _L =100°C	IF(AV)	1.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	40					A
Maximum forward voltage at 1A DC	VF	0.5			0.7		V
Maximum DC reverse current at rated DC blocking voltage	T _J =25°C	0.5					mA
	T _J =125°C	8					mA
Typical junction capacitance (Note 1)	C _j	110					pF
Typical thermal resistance(Note 2)	R _{θJA}	76					°C/W
	R _{θJC}	41					
	R _{θJL}	32					
Operating junction temperature range	T _J	- 55 to + 125			- 55 to + 150		°C
storage temperature range	T _{STG}	- 55 to + 150					°C

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

2. Thermal Resistance at .375(9.5mm) Lead Length, PC Board Mounted

RATINGS AND CHARACTERISTICS CURVES
