



5A SCHOTTKY BARRIER RECTIFIER

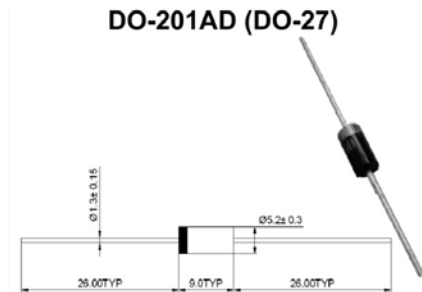
Reverse Voltage 40 Volts Forward Current 5.0 Amperes

Features

- Metal silicon junction, majority carrier conduction
- Guardring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

Mechanical Data

- Case: DO-201AD(DO-27) molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.04 ounce, 1.10 grams (approximate)



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SB540L	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Average Rectified Output Current 0.375" (9.5mm) lead length	I_o	5.0	A
Peak forward surge current, 8.3 mS single half sine-wave superimposed on rated load	I_{FSM}	80	A
Maximum instantaneous forward voltage at $I_o=5A$	V_F	0.46	V
Maximum DC reverse current @ $T_a=25^{\circ}C$ at rated DC blocking voltage @ $T_a=100^{\circ}C$	I_R	0.5 20.0	mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	20	$^{\circ}C/W$
Operating junction temperature range	T_J	-55 to +125	$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}C$

Notes:

1. Thermal Resistance from Junction to Ambient 0.375" (9.5mm) lead length.



RATINGS AND CHARACTERISTIC CURVES

FIG. 1 – TYPICAL FORWARD CURRENT DERATING CURVE

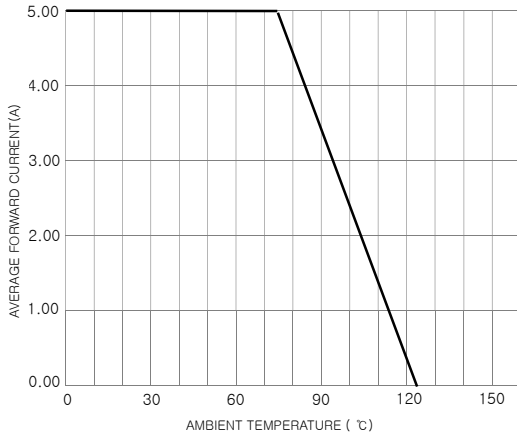


FIG. 2 – TYPICAL FORWARD CHARACTERISTICS

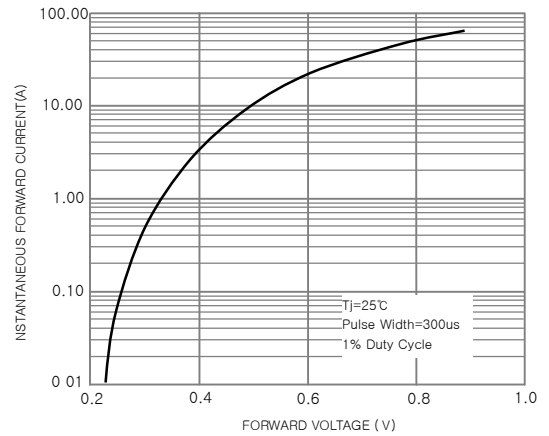


FIG. 3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

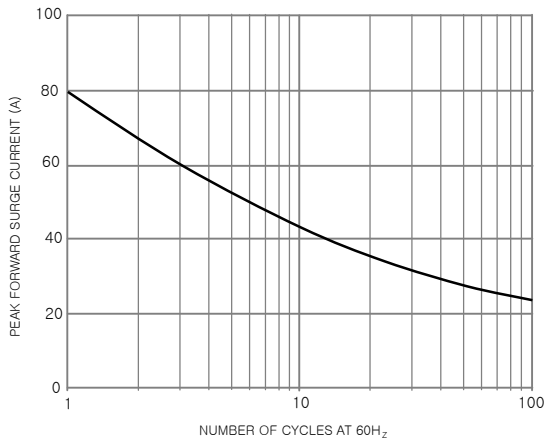


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

