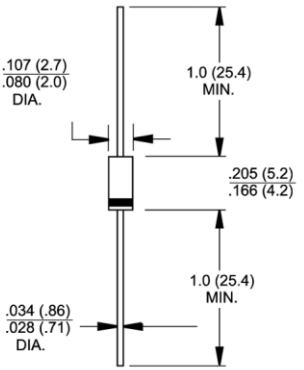
BHT18

1.0 Amp. Electronic Lamp Ballasts Rectifier
Voltage Range 1100 Volts Forward Current 1.0 Ampere

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

DO-204AL (DO-41)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: JEDEC DO-204AL (DO-41), molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounce, 0.33 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	BHT18	Units
Maximum repetitive peak reverse voltage	V_{RRM}	1100	Volts
Maximum RMS voltage	V_{RMS}	770	Volts
Maximum DC blocking voltage	V_{DC}	1100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=75°C	$I_{F(AV)}$	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_A=75°C	I_{FSM}	30.0	Amps
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T_L=75°C	$I_{R(AV)}$	30	uA
Maximum instantaneous forward voltage at 1.0A	V_F	1.0	Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C / T_A=100°C	I_R	1.0 / 30	uA
Typical reverse recovery time at I_{FM}=20mA, I_{RM}=1mA (Note 2)	t_{rr}	30.0	uS
Typical junction capacitance at 4.0V, 1MHz	C_J	15	pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ / $R_{\theta JL}$	50.0 / 25.0	°C/W
Maximum DC blocking voltage temperature	T_A	+150	°C
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +175	°C

Notes: 1. Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted
2. Measured on Tektronix type "S" recovery plug-in. Tektronix 545 scope or equivalent

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

FIG.1 - FORWARD CURRENT DERATING CURVE

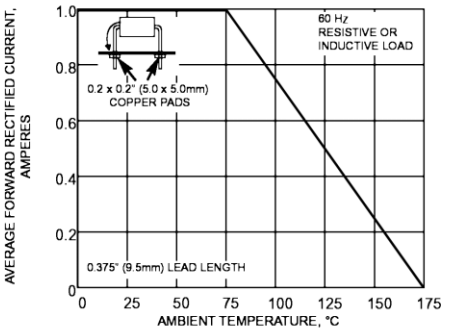


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

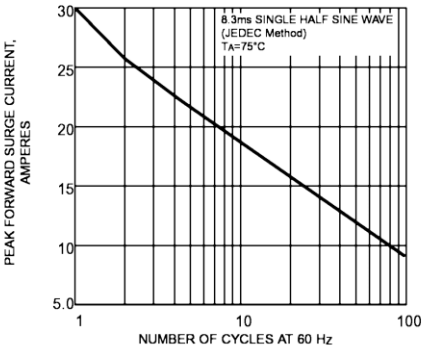


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

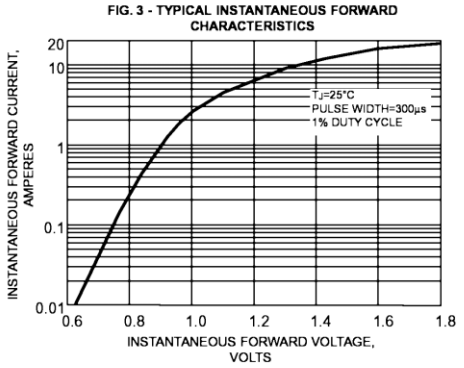


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

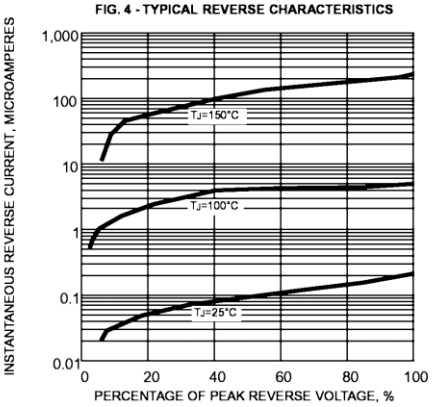


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

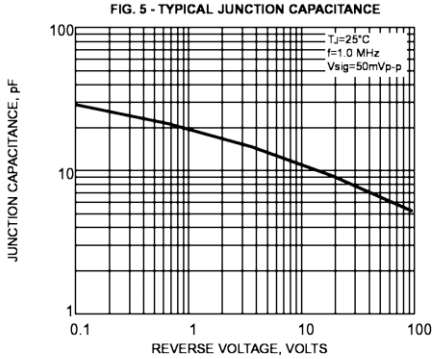


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE