BHT18

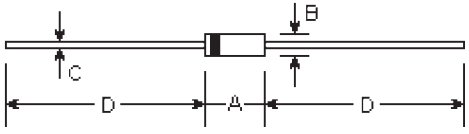
ELECTRONIC LAMP BALLASTS RECTIFIER

Reverse Voltage - 1100 Volts
Forward Current - 1.0 Ampere

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

DO-41



Mechanical Data

- **Case:** 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

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	ϕ
C	0.028	0.034	0.71	0.86	ϕ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

	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℃	$I_{(AV)}$	1.0	Amp
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.0	Volts
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T_A=75℃	$I_{R(AV)}$	30.0	μA
Maximum DC reverse current at rated DC blocking voltage T_A=25℃ / T_A=100℃	I_R	1.0 / 30.0	μA
Typical reverse recovery time (Note 1)	T_{rr}	30.0	μS
Typical junction capacitance (Note 2)	C_J	15.0	ρF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ / $R_{\theta JL}$	50.0 / 25.0	℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +175	℃

Notes:

(1) Measured on Tektronix Type "S" recovery plug-in. Tektronix 545 Scope or equivalent, I_{FM}=20mA, I_{RM}=1mA

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

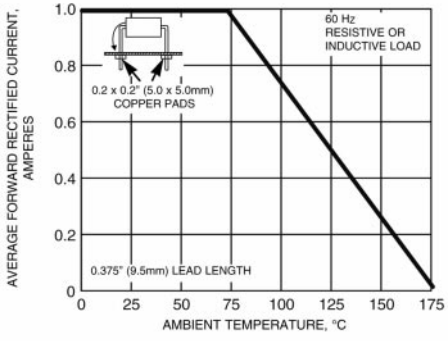


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

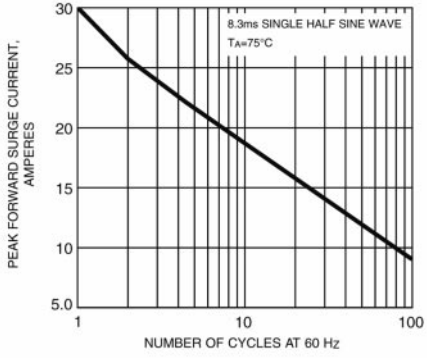


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

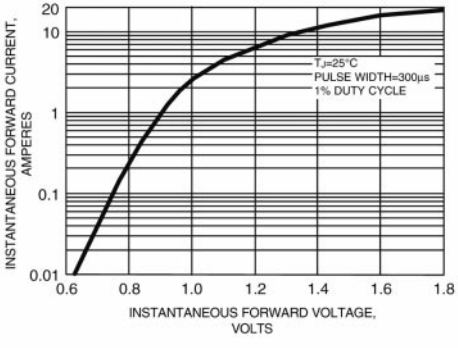


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

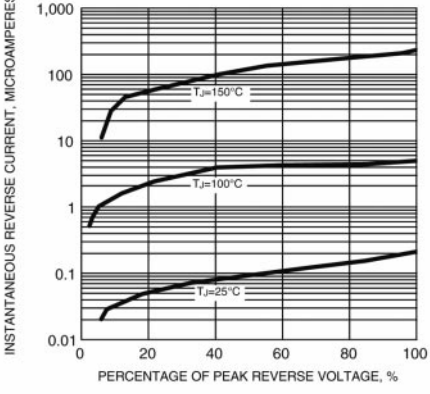


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

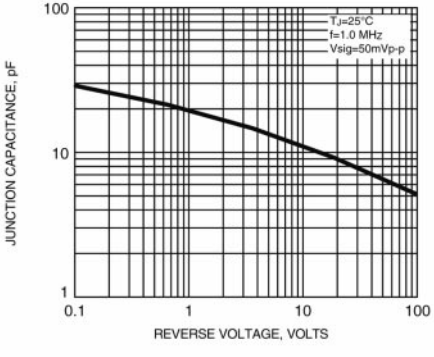
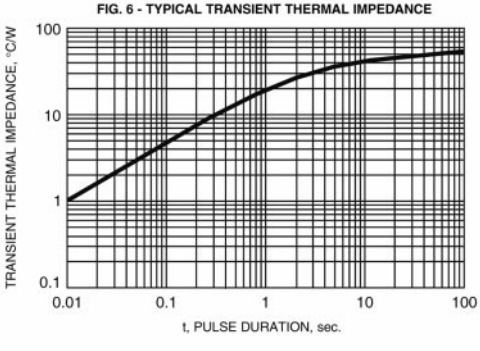



FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE