1N5809-1

SINTERED GLASS JUNCTION
FAST AVALANCHE RECTIFIER

VOLTAGE： 100V **CURRENT: 6.0A**

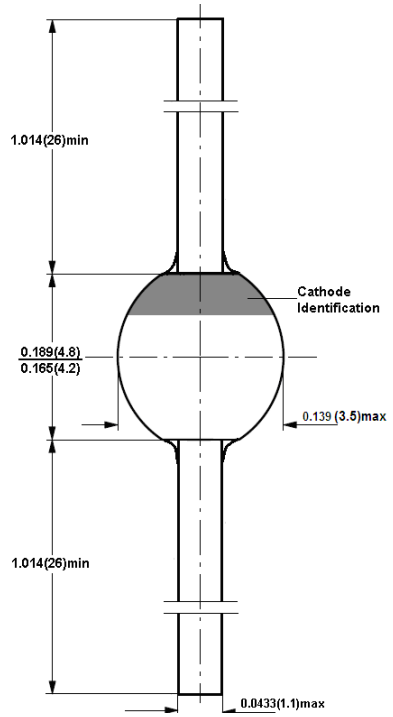
FEATURE

Glass passivated
Hermetically sealed package
Low reverse current
Soft recovery characteristics

MECHANICAL DATA

Case: G-4 sintered glass case
Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Polarity: color band denotes cathode end
Mounting position: any

G-4-2



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	1N5809-1	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC blocking Voltage	V_{DC}	100	V
Maximum Reverse Breakdown Voltage I_R=100μA	V_{BR}	110	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta=55℃	I_{FAV}	6.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125	A
Maximum Forward Voltage at Forward Current 4A and 25℃	V_F	0.875	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =100℃	I_R	5.0 150.0	μA
Maximum Reverse Recovery Time (Note 1)	Trr	30	nS
Typical Thermal Resistance	Rth(jl)	35.5	℃ /W
Storage and Operating Junction Temperature	Tstg, Tj	-65 to +175	℃

Note:
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A

RATINGS AND CHARACTERISTIC CURVES 1N5809-1

FIG. 1 - FORWARD CURRENT DERATING CURVE

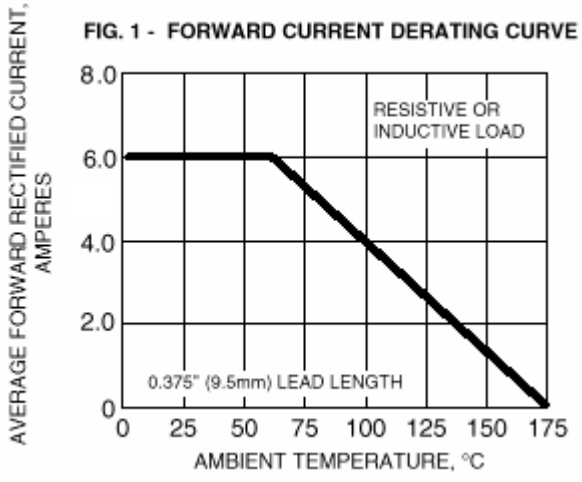


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

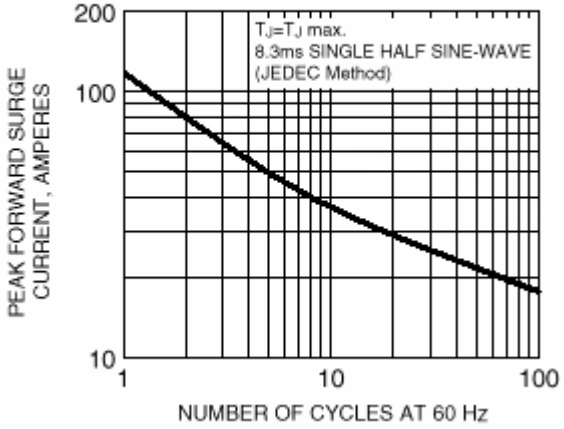


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

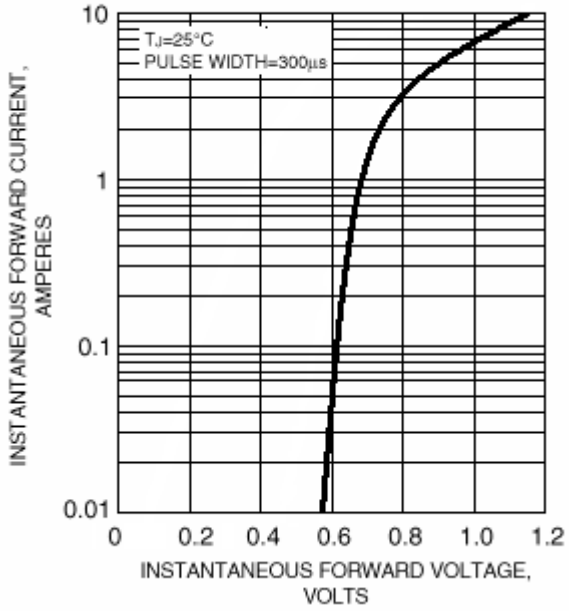


FIG. 4 - TYPICAL REVERSE CHARACTERISTIC