GOOD-ARK SEMICONDUCTOR

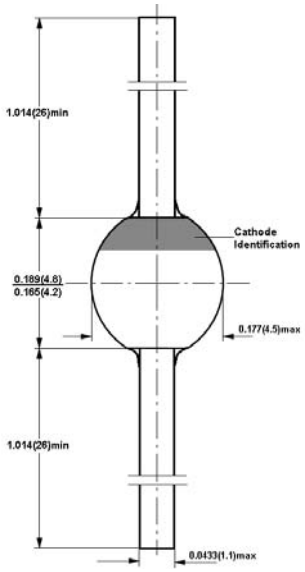
1N5420

Sintered Glass Junction Fast Avalanche Rectifier

Features

- Glass passivated
- Hermetically sealed package
- Low reverse current
- Soft recovery characteristics

Dimensions in inches and (millimeters)



Package: G4

Mechanical Data

- Case: G-4 sintered glass case
- Terminal: Plated axial leads solderable per JSTD-002
- Polarity: Color band denotes cathode

Marking

- 1N5420

Absolute Maximum Ratings and Electrical Characteristics

(single-phase, half-wave, 60HZ, T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Reverse Breakdown Voltage I_R=50μA	V_{BR}	660	V
Maximum Average Forward Rectified Current 3/8"lead Length at Ta=55℃	I_{FAV}	4.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	120	A
Maximum Forward Voltage at Forward Current 9.0A	V_F	1.5	V
Maximum DC Reverse Current Ta =25℃ at Rated DC Blocking Voltage Ta =100℃	I_R	1.0 20.0	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150	nS
Typical Junction Capacitance (Note 2)	C_j	50.0	pF
Typical Thermal Resistance (Note 3)	$R_{th(ja)}$	20.0	°C/W
Storage and Operating Junction Temperature	T_{stg}, T_j	-65 to +175	°C

Note:

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

Typical Electrical Characteristic Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

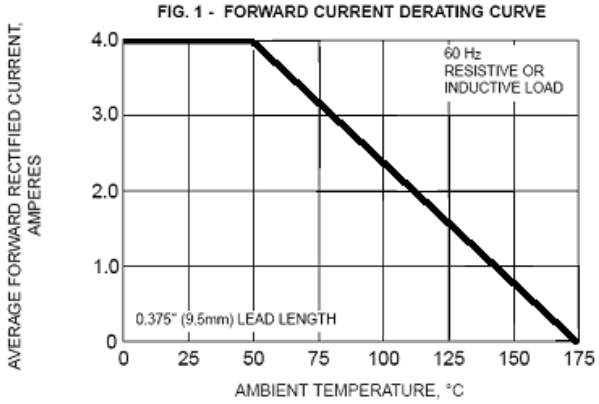


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

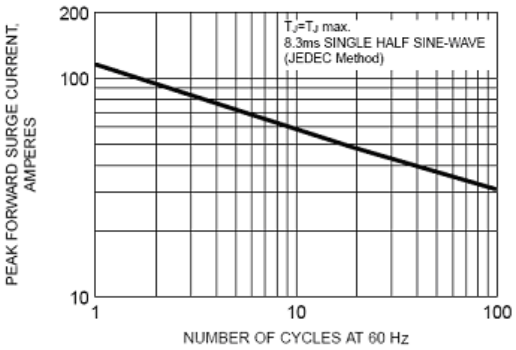


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

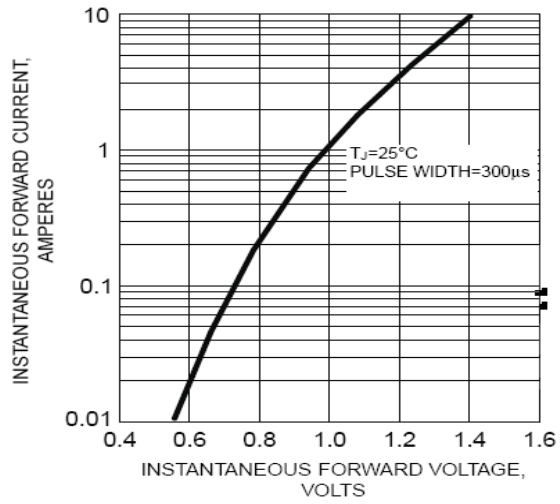


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

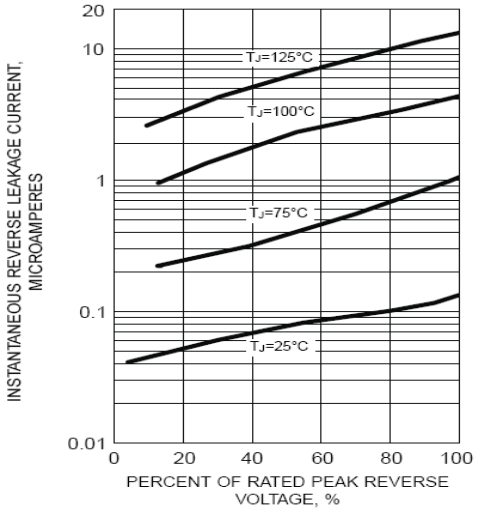


FIG. 5 - TYPICAL JUNCTION CAPACITANCE