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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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3A, 20V - 40V Schottky Barrier Rectifiers

FEATURES

- Low forward voltage drop
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



MECHANICAL DATA

Case: DO-201AD

Molding compound, UL flammability classification rating 94V-0

DO-201AD

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Pure tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 1.10g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	1N5820	1N5821	1N5822	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current	$I_{F(AV)}$	3			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	70			A
Maximum instantaneous forward voltage (Note 1) @ 3 A	V_F	0.475	0.500	0.525	V
Maximum reverse current @ rated V_R $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	0.5 10			mA
Typical Junction Capacitance (Note 2)	C_J	200			pF
Typical thermal resistance	$R_{\theta JA}$	40			°C/W
Operating junction temperature range	T_J	- 55 to +125			°C
Storage temperature range	T_{STG}	- 55 to +125			°C

Note 1: Pulse test with $PW=300\ \mu\text{s}$, 1% duty cycle

Note 2: Measure at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
1N582x (Note 1)	H	A0	G	DO-201AD	500 / Ammo box
		R0		DO-201AD	1,250 / 13" Paper reel
		B0		DO-201AD	500 / Bulk packing
		X0		DO-201AD	Forming

Note 1: "x" defines voltage from 20V (1N5820) to 40V (1N5822)

*: Optional available

EXAMPLE

PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
1N5820HA0G	1N5820	H	A0	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

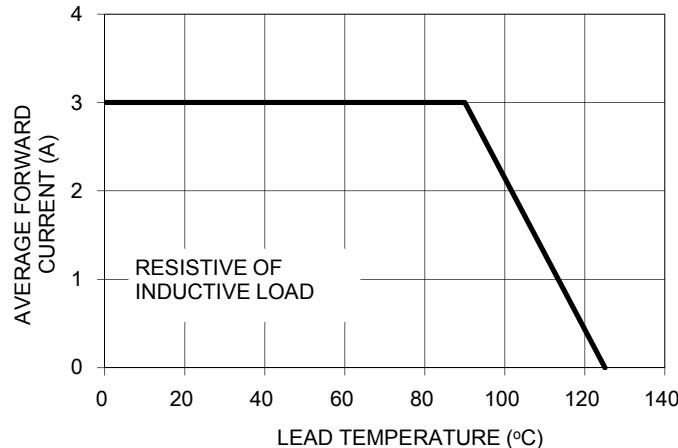


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

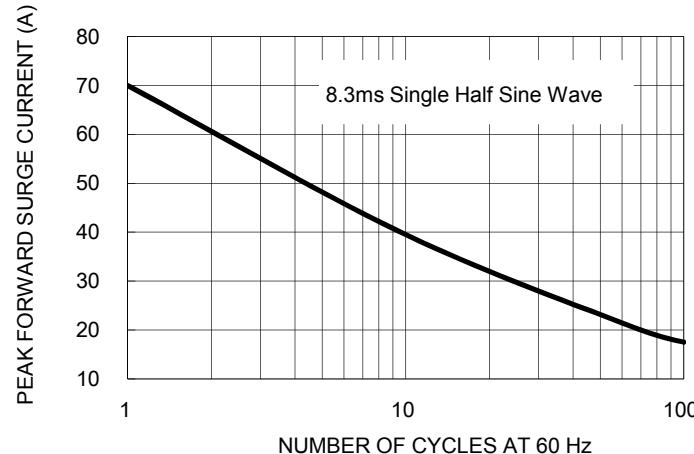


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

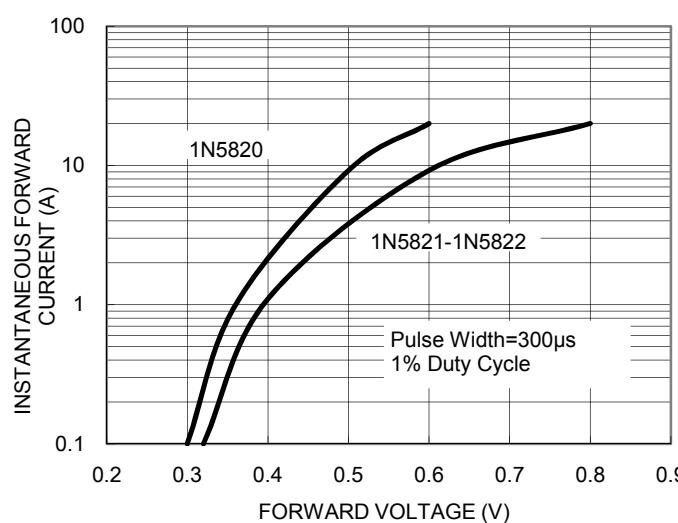


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

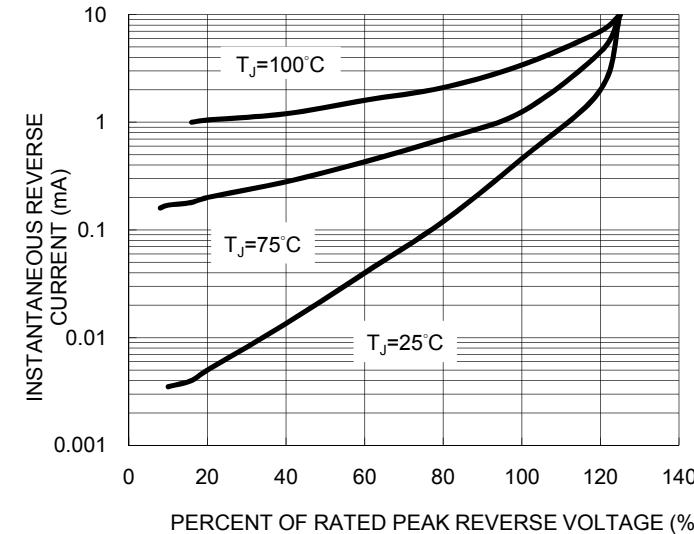
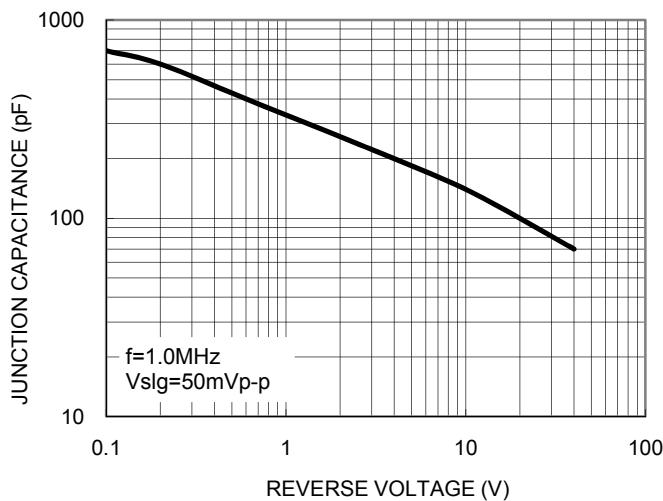
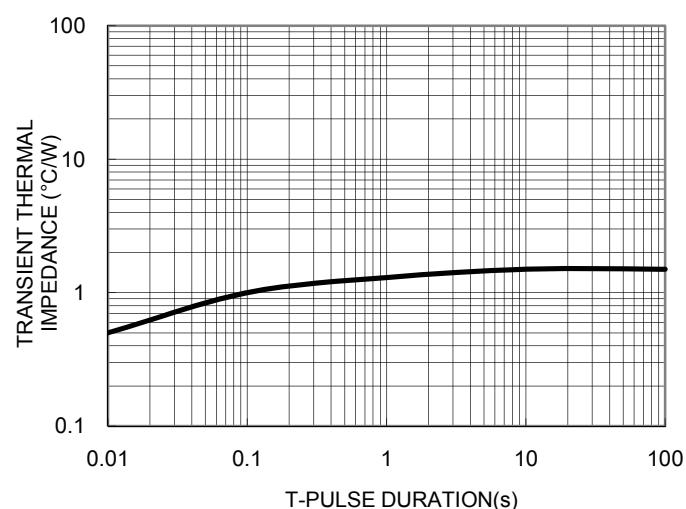
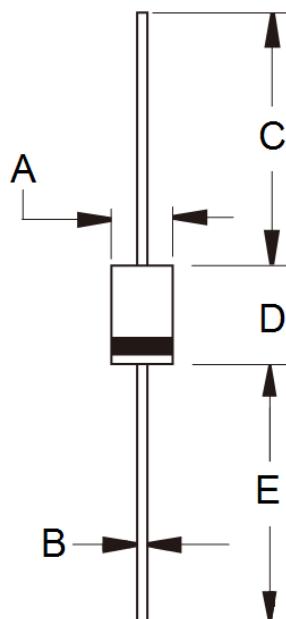


FIG. 5- TYPICAL JUNCTION CAPACITANCE

FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

DIMENSIONS
DO-201AD


DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	5.00	5.60	0.197	0.220
B	1.20	1.30	0.048	0.052
C	25.40	-	1.000	-
D	8.50	9.50	0.335	0.375
E	25.40	-	1.000	-

MARKING DIAGRAM


P/N	= Specific Device Code
G	= Green Compound
YWW	= Date Code
F	= Factory Code

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