

PLASTIC SILICON RECTIFIERS

REVERSE VOLTAGE – 50 to 1000 Volts
FORWARD CURRENT – 3.0 Amperes

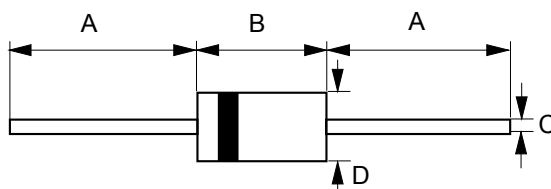
FEATURES

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability

MECHANICAL DATA

- Case: JEDEC DO-201AD, molding compound has UL flammability classification 94V-0
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces, 1.1 grams
- Mounting Position: Any

DO-201AD



DO-201AD		
DIM	MIN	MAX
A	25.4	--
B	7.30	9.50
C	1.20	1.30
D	4.80	5.30
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER		SYMBOL	1N5400	1N5401	1N5402	1N5403	1N5404	1N5405	1N5406	1N5407	1N5408	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum DC blocking voltage		V_{DC}	50	100	200	300	400	500	600	800	1000	V
Average rectified output current per device	@ $T_A = 55^\circ\text{C}$	$I_{(AV)}$	3.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	@ $T_J = 25^\circ\text{C}$	I_{FSM}	200									A
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	166									A^2S
Operating temperature range		T_J	-55 to +125									$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 to +150									$^\circ\text{C}$

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	VALUE	UNIT
Forward voltage (Note1)	$I_F = 3.0\text{A}$	$T_J = 25^\circ\text{C}$	V_F	1.0	V
Leakage current	V_R at rated	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	I_R	10 50	μA
Typical junction capacitance (Note1)			C_J	50	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Typical thermal resistance (Note2)	R_{thJA} R_{thJL} R_{thJC}	30 10 5	$^\circ\text{C/W}$

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (2) Thermal resistance junction to ambient, lead and case,

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RATING AND CHARACTERISTIC CURVES 1N5400 thru 1N5408



FIG.1- FORWARD CURRENT DERATING CURVE

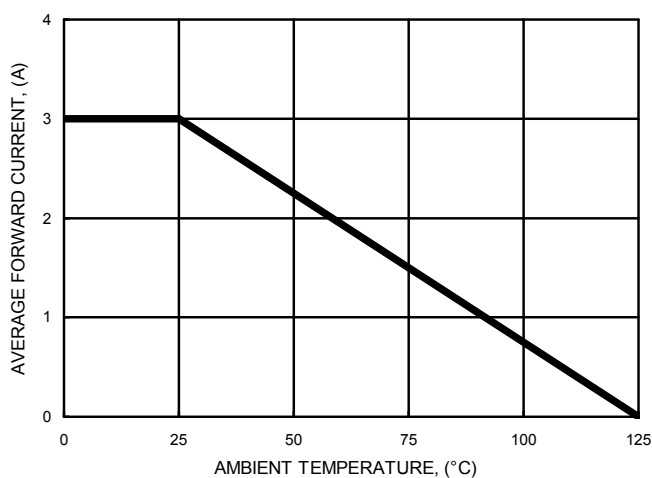


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

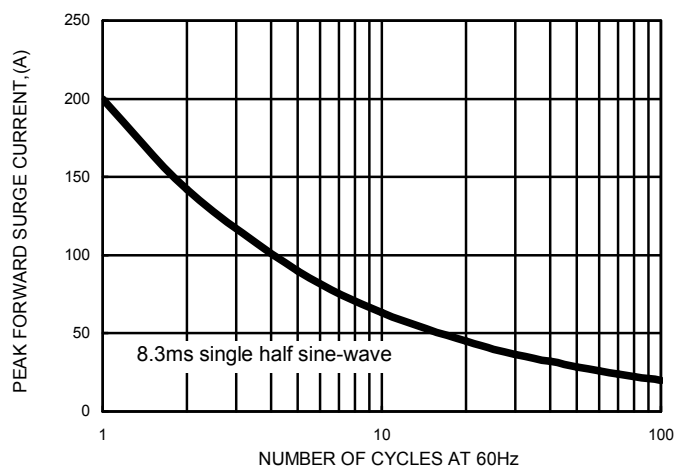


FIG.3- TYPICAL FORWARD CHARACTERISTICS

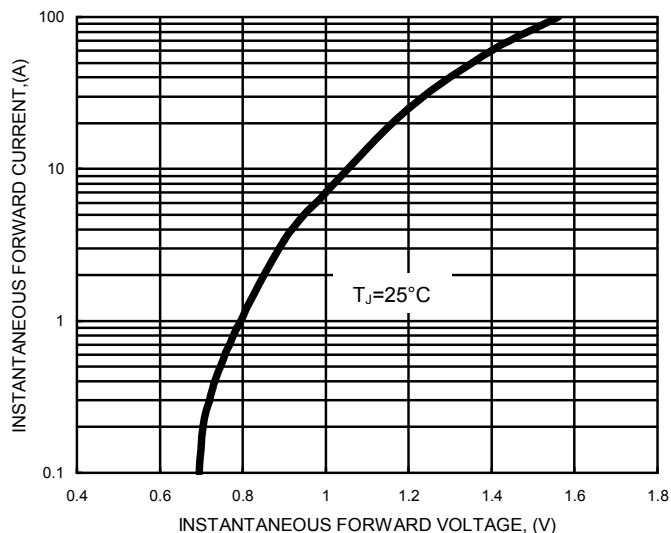


FIG.4- TYPICAL JUNCTION CAPACITANCE

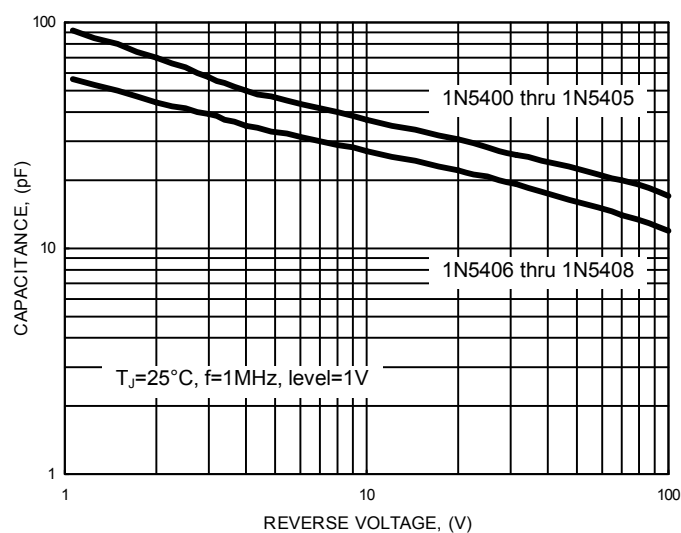
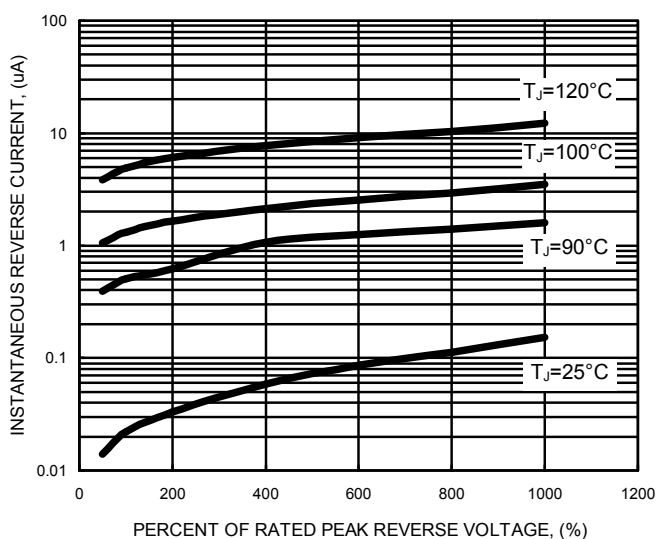


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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