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4A, 200V - 600V Ultrafast Glass Passivated Rectifiers

FEATURES

- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



Case: DO-201AD

Molding compound, UL flammability classification rating 94V-0

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

Weight: 1.2 g (approximately)







| PARAMETER | SYMBOL V _{RRM} | MUR420 200 | MUR440 400 | MUR460 600 | UNIT |
|---|-------------------------|---------------|---------------|---------------|------|
| Maximum repetitive peak reverse voltage | | | | | |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | V |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | V |
| Maximum average forward rectified current | I _{F(AV)} | 4 | | | Α |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 125 | | А | |
| Maximum instantaneous forward voltage (Note 1) @ 4 A | V _F | 0.89 | 1.28 | | V |
| Maximum reverse current @ rated V_R T_J =25°C T_J =125°C | I _R | 5 150 | 10 250 | | μA |
| Maximum reverse recovery time (Note 2) | t _{rr} | 25 | 50 | | ns |
| Typical junction capacitance (Note 3) | CJ | 65 | | | pF |
| Ti. ad the annual vacintains | $R_{	heta JL}$ | 15 | | | °C/W |
| Typical thermal resistance | $R_{\theta JA}$ | 28 | | | |
| Operating junction temperature range | TJ | - 55 to +175 | | | °C |
| Storage temperature range | T _{STG} | - 55 to +175 | | | °C |

Note 1: Pulse Test with PW=300µs, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



| ORDERING INFORMATION | | | | | | |
|----------------------|----------|--------------|--------------|----------|------------------------|--|
| PART NO. | PART NO. | PACKING CODE | PACKING CODE | PACKAGE | PACKING | |
| | SUFFIX | | SUFFIX (*) | | | |
| MUR4x0 (Note 1) | Н | 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 | |

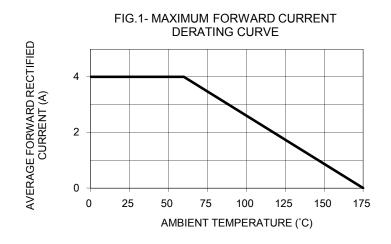
Note 1: "x" defines voltage from 200V (MUR420) to 600V (MUR460)

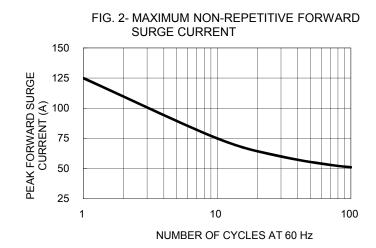
^{*:} Optional available

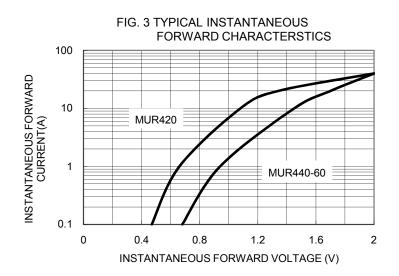
| EXAMPLE | | | | | | |
|---------------|----------|--------------------|--------------|------------------------|--------------------------------------|--|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION | |
| MUR460HA0G | MUR460 | Н | A0 | G | AEC-Q101 qualified Green compound | |

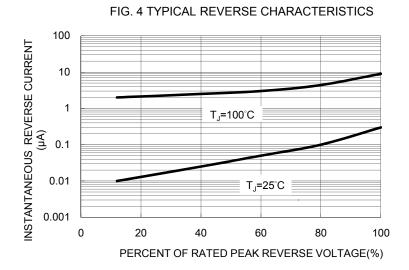
RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)









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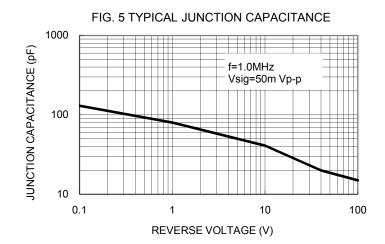
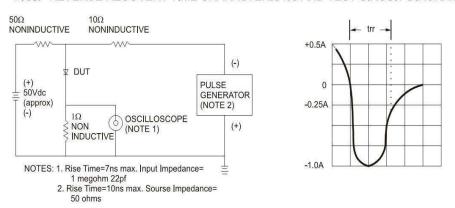
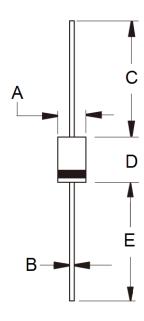


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS DO-201AD



| DIM. | Unit | (mm) | Unit (inch) | | |
|------|-------|------|-------------|-------|--|
| | Min | Max | Min | Max | |
| Α | 5.00 | 5.60 | 0.197 | 0.220 | |
| В | 1.20 | 1.30 | 0.048 | 0.052 | |
| С | 25.40 | - | 1.000 | - | |
| D | 8.50 | 9.50 | 0.335 | 0.375 | |
| Е | 25.40 | - | 1.000 | - | |

MARKING DIAGRAM



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

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