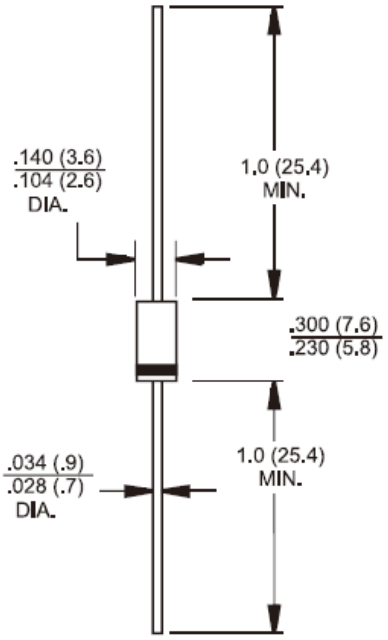
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

2A01 - 2A07

2.0 AMPS. Silicon Rectifiers

DO-15



Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260℃/10s /.375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Weight: 0.40 grams

Dimensions in inches and (millimeters)

Marking Diagram

2A0X	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	2A01	2A02	2A03	2A04	2A05	2A06	2A07	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T_A=75℃	$I_{F(AV)}$	2							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage (Note 1) @ 2 A	V_F	1.0							V
Maximum DC Reverse Current at @ T_A=25 ℃ Rated DC Blocking Voltage @ T_A=125℃	I_R	5 50							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T_A=75℃	$I_{R(AV)}$	30							uA
Typical Junction Capacitance (Note 2)	Cj	20							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60							°C/W
Operating Temperature Range	T_J	- 65 to + 150							°C
Storage Temperature Range	T_{STG}	- 65 to + 150							°C

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note3: Mount on Cu-Pad Size 10mm × 10mm on P.C.B.

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RATINGS AND CHARACTERISTIC CURVES (2A01 THRU 2A07)

FIG.1- MAXMUM FORWARD CURRENT DERATING CURVE

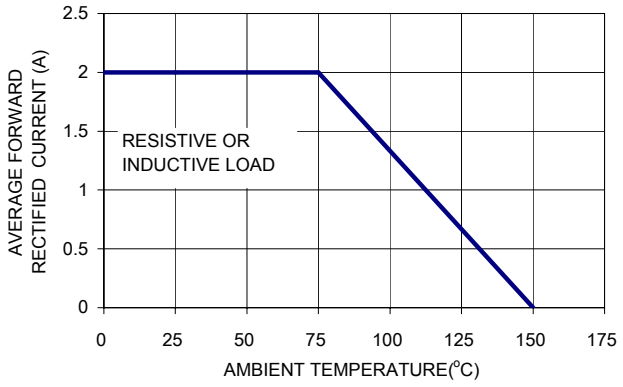

FIG. 2- TYPICAL REVERSE CHARACTERISTICS

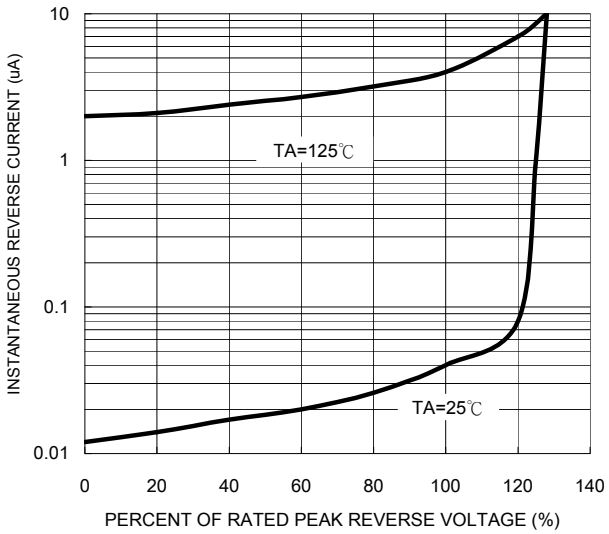

FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

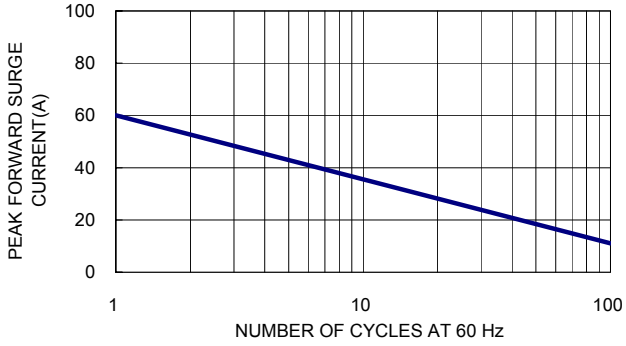

FIG. 4- TYPICAL JUNCTION CAPACITANCE

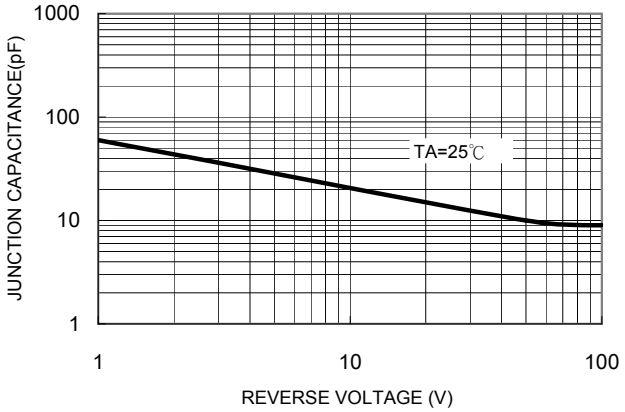

FIG. 5- TYPICAL FORWARD CHARACTERISTICS