M1 THRU M7

1.0 AMP SURFACE MOUNT SILICON RECTIFIERS

FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* High surge current capability

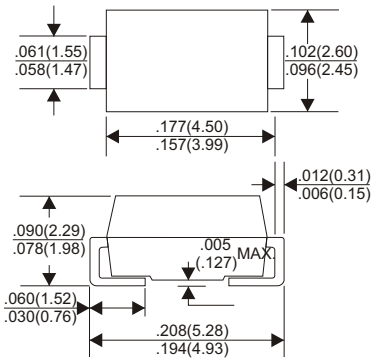
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.063 gram

*Both normal and Pb free product are available:
*Normal:80~95% Sn,5~20% Pb
*Pb free:99 Sn above can meet Roh senviroment substance directive request

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25˚C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	M1	M2	M3	M4	M5	M6	M7	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current				1.0				A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)				30				A
Maximum Instantaneous Forward Voltage at 1.0A				1.1				V
Maximum DC Reverse Current Ta=25˚C				5.0				μA
at Rated DC Blocking Voltage Ta=100˚C				50				μA
Typical Junction Capacitance (Note 1)				15				pF
Typical Thermal Resistance R JA (Note 2)				50				˚C/W
Operating and Storage Temperature Range Tj, TSTG				-65 — +175				˚C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (M1 THRU M7)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

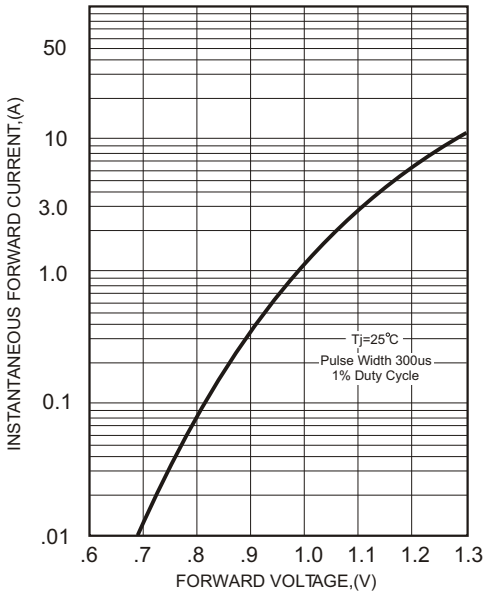


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

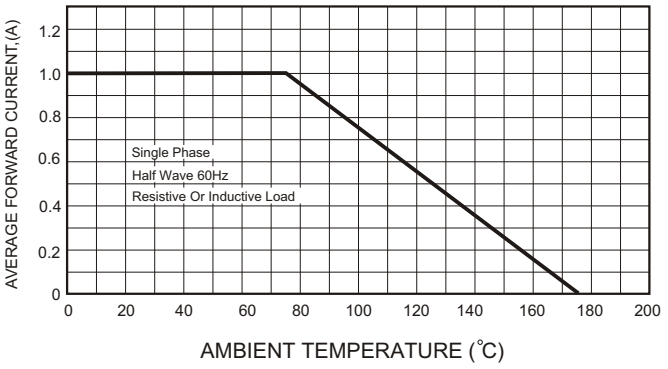


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

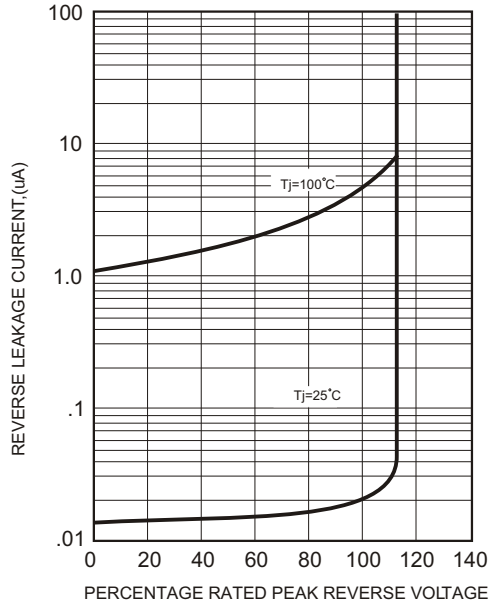


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

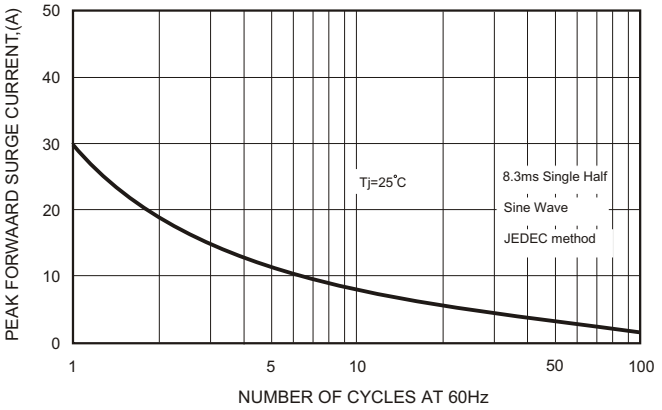


FIG.5-TYPICAL JUNCTION CAPACITANCE