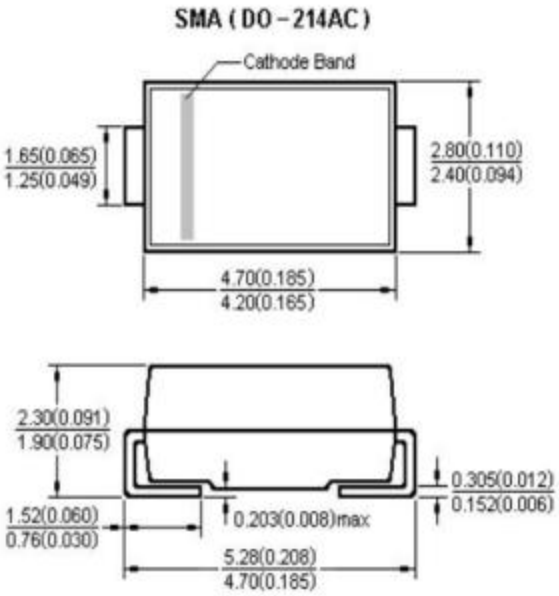
US2A THRU US2M

Surface Mount Standard Rectifiers

Major Ratings and Characteristics

$I_{F(MV)}$	2A
V_{RRM}	50Vto1000V
I_{FSM}	50A
I_R	5uA
V_F	1.7V
T_{rr}	50ns，75ns
T_{jMAX}	150℃

SMA (DO-214AC)



Dimentsions in millimeters and (inchs)

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junctions
- Ultrafast reverse recovery time
- Low switching losses, high efficiency
- High forward surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** JEDEC DO-214AC molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(TA = 25 °C unless otherwise noted)

Type Number	SYMBOL	US2A	US2B	US2D	US2G	US2J	US2K	US2M	unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	140	420	560	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .at TA =55°C	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50.0							A
Maximum Forward Voltage at 1.5A DC	V_F	1.0			1.4	1.7			V
Maximum DC Reverse Current @T_A =25°C	I_R	5.0							μA
At rated DC blocking voltage @T_A=100°C		100.0							
Typical Junction Capacitance (Note1)	Cj	15							pF
Maximum reverserecovery tme (Note2)	trr	50				75			ns
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	75							℃ /W
Storage Temperature	T_{STG}	-55 to +150							℃
Operation Junction Temperature	T_J	-55 to +150							℃

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

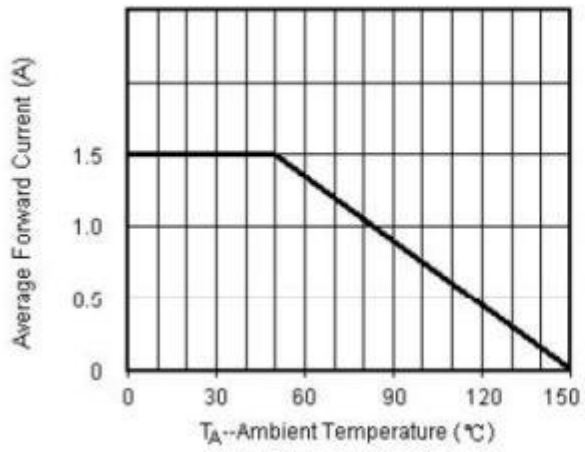


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

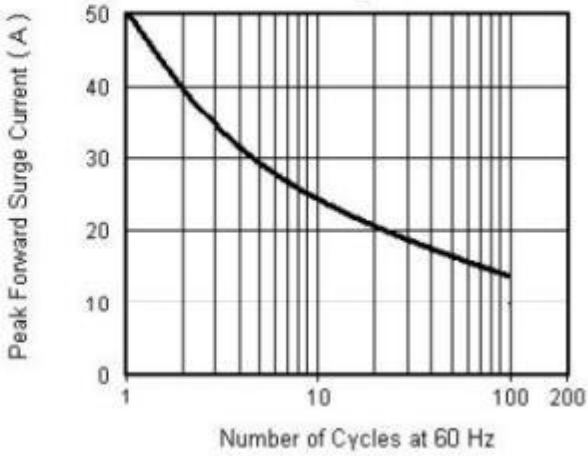


Fig.3 Typical Instantaneous Forward Characteristics

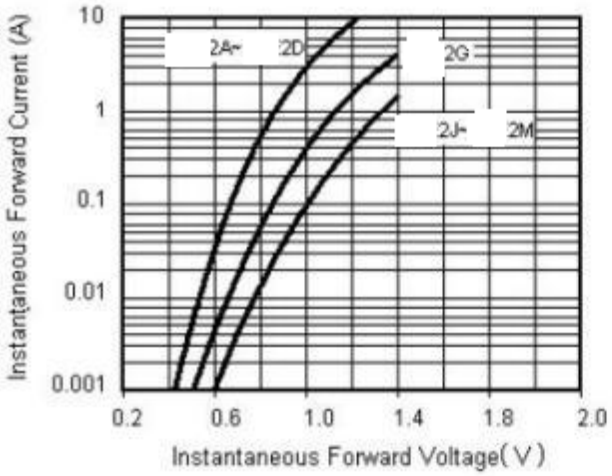


Fig.4 Typical Reverse Leakage Characteristics

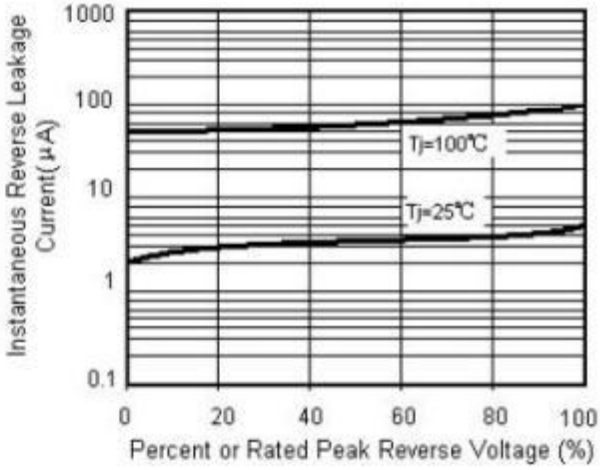
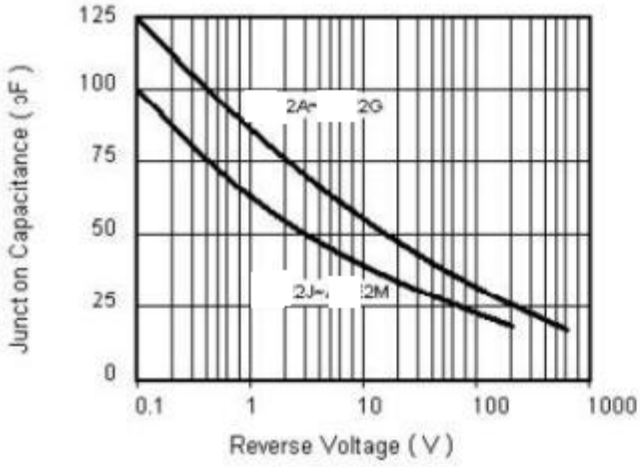



Fig.5 Typical Junction Capacitance