TIGER ELECTRONIC CO.,LTD

US1A THRU US1M

1.0 AMP. HIGH EFFICIENT RECOVERY SURFACE MOUNT RECTIFIERS

Voltage Range
50 to 1000 VOLTS
Current
1.0 Amperes

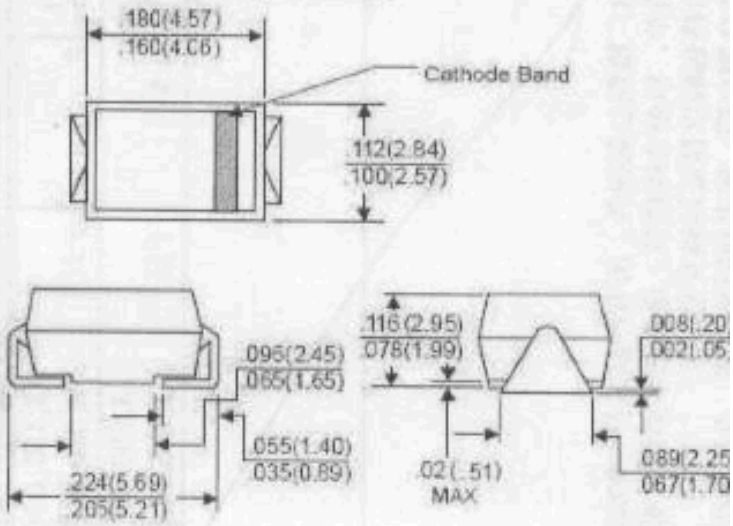
Features

- Glass passivated junction chip
- For surface mounted application
- Low profile package
- Built-in strain relief
- Ideal for automated placement
- Easy pick and place
- Ultrafast recovery time for high efficiency
- Low forward voltage, low power loss
- High temperature soldering guaranteed: 260°C/10 seconds on terminals
- Plastic material used carries Underwriters
- Laboratory Classification 94V0

Mechanical Data

- Cases: Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Weight: 0.064 gram

SMA-W



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number	Symbol	US1A	US1B	US1D	US1G	US1J	US1K	US1M	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	00	800	1000	V
Maximum Average Forward Rectified Current @ T_L=110°C	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.0				1.7			V
Maximum DC Reverse Current @ T_A =25°C at Rated DC Blocking Voltage @ T_A=125°C	I_R	5.0 150							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	50				75			nS
Typical Junction Capacitance (Note 2)	Cj	15				10			pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	75 27							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	TSTG	-55 to + 150							°C

Notes:
1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1 MHz and Applied VR=4.0 Volts
3. P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Area.