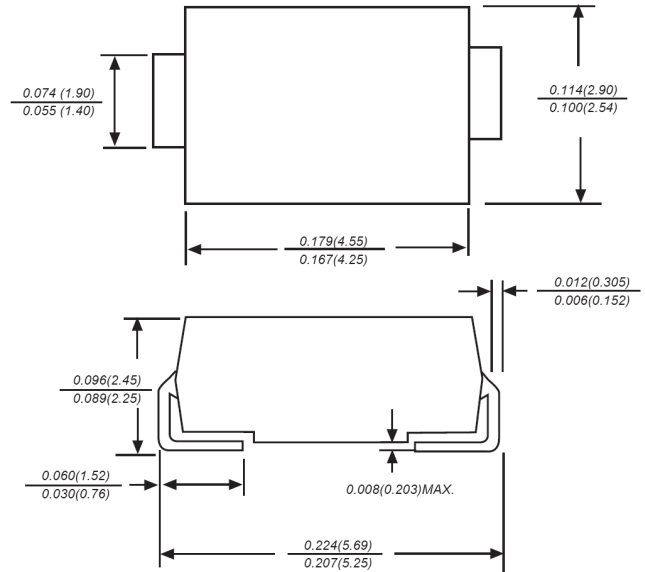


Kingtronics®**US1A THRU US1M****SURFACE MOUNT ULTRA FAST RECTIFIER****Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere****FEATURES**

- ◆ The plastic package carries Underwriters Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA**Cases :** JEDEC SMA molded plastic body**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026**Polarity:** Color band denotes cathode end

Mounting Position: Any

Weight:0.003 ounce, 0.093 grams**SMA****Dimensions in inches and (millimeters)****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=55^\circ\text{C}$	$I_{(AV)}$				1.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				30.0				Amps
Maximum instantaneous forward voltage at 1.0A	V_F		1.0		1.4		1.7		Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R				5.0				μA
Maximum reverse recovery time (NOTE 1)	t_{rr}		50				75		ns
Typical junction capacitance (NOTE 2)	C_J				15.0				pF
Typical thermal resistance (NOTE 3)	R_{qJA}				50.0				$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}				-65 to +150				$^\circ\text{C}$

Notes: 1.Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

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

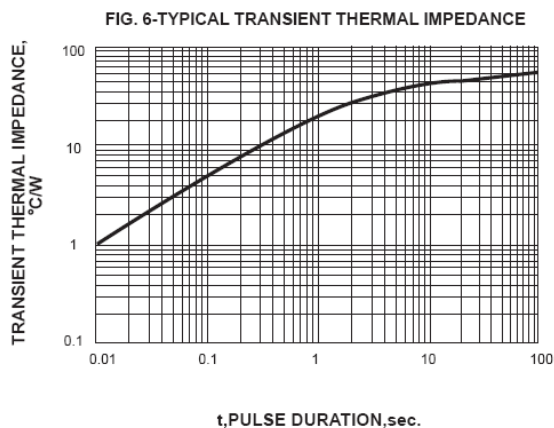
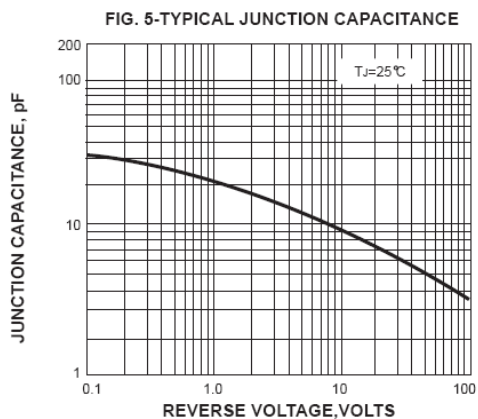
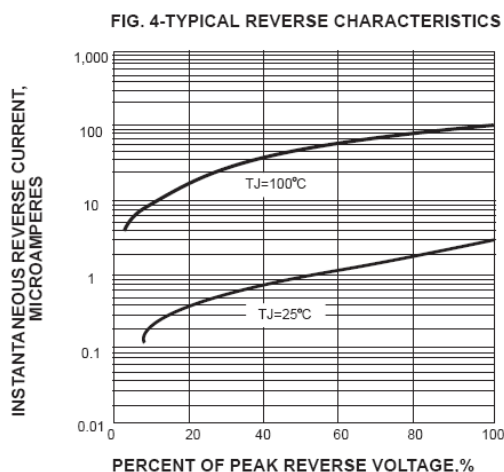
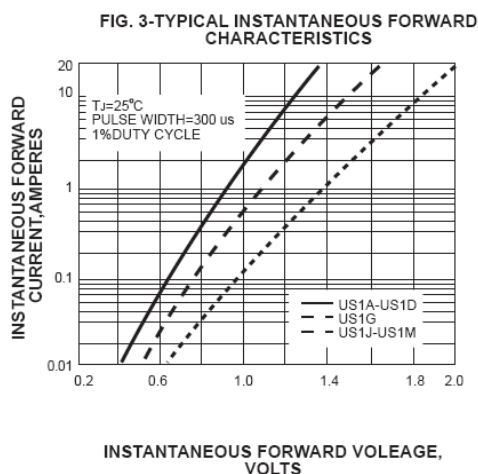
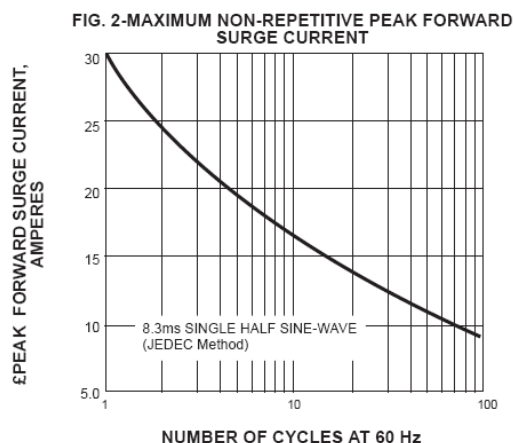
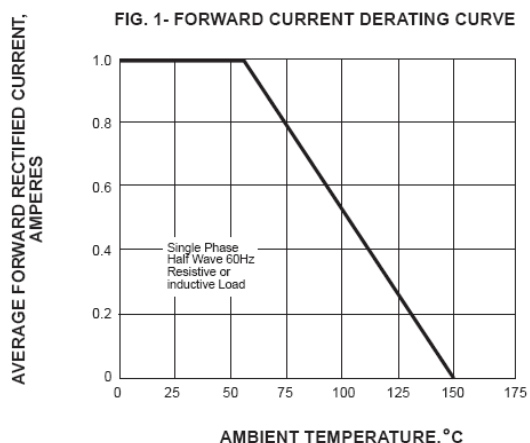
3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES US1A THRU US1M



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