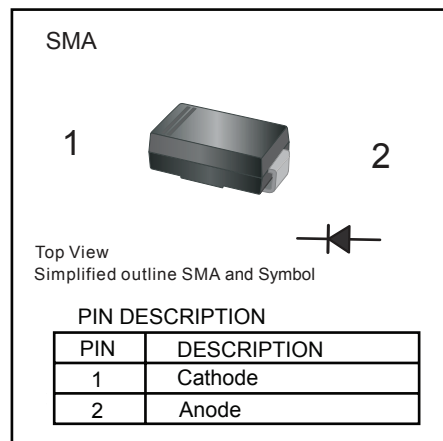


Ultra Fast Rectifier

US1A ~ US1M

■ Features

- 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



■ Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbol	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit	
Repetitive 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		
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000		
Instantaneous Forward Voltage at $I_F=1.0A$	V_F	1.0			1.3	1.7			A	
Maximum Average Forward Rectified Current @ $T_A = 55^\circ C$	$I_{F(AV)}$	1.0								
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	30								
Maximum DC Reverse Current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	5					50			μA
Reverse Recovery Time *1	t_{rr}	50				75				ns
Typical Junction Capacitance *2	C_j	15								pF
Typical Thermal Resistance *3	$R_{\theta JA}$	50								$^\circ C/W$
Junction Temperature	T_j	150								$^\circ C$
Storage Temperature	T_{stg}	-55 to 150								

* 1 Reverse recovery test condition: $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$

* 2 Measured at 1MHz and applied reverse voltage of 4V D.C

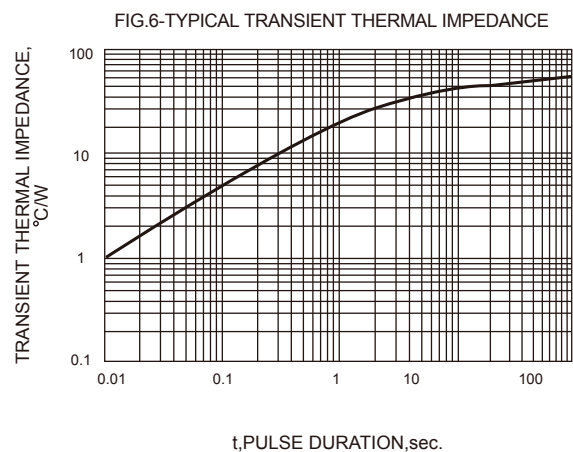
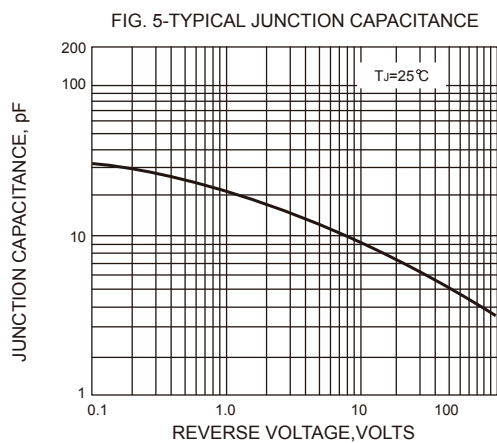
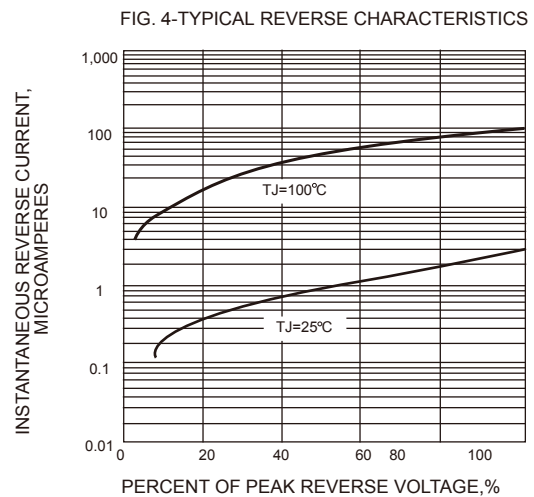
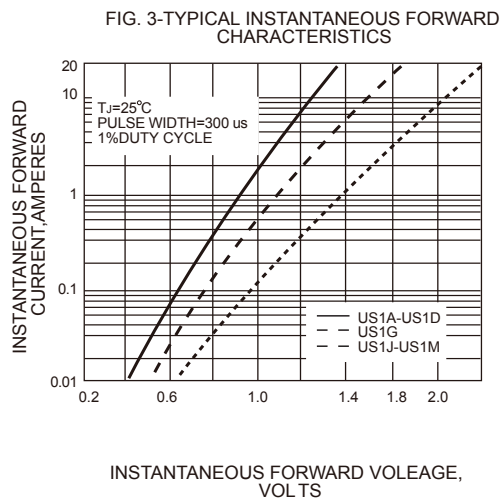
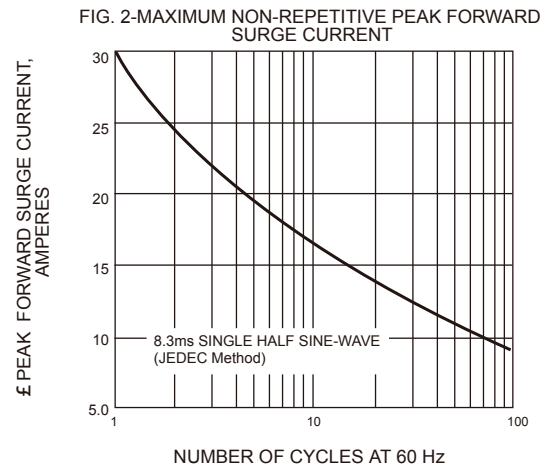
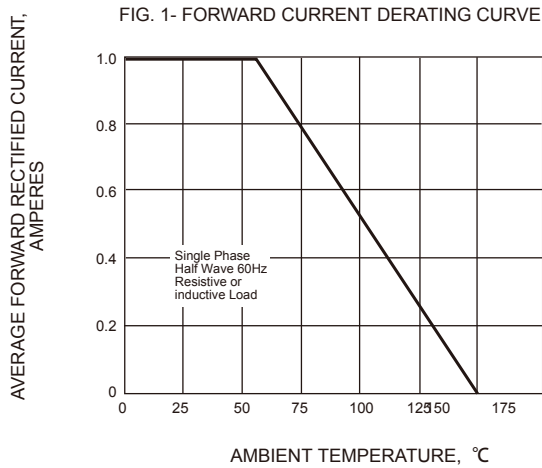
* 3 P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas.

■ Marking

NO.	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Marking	US1A	US1B	US1D	US1G	US1J	US1K	US1M

US1A ~ US1M

Typical Characteristics

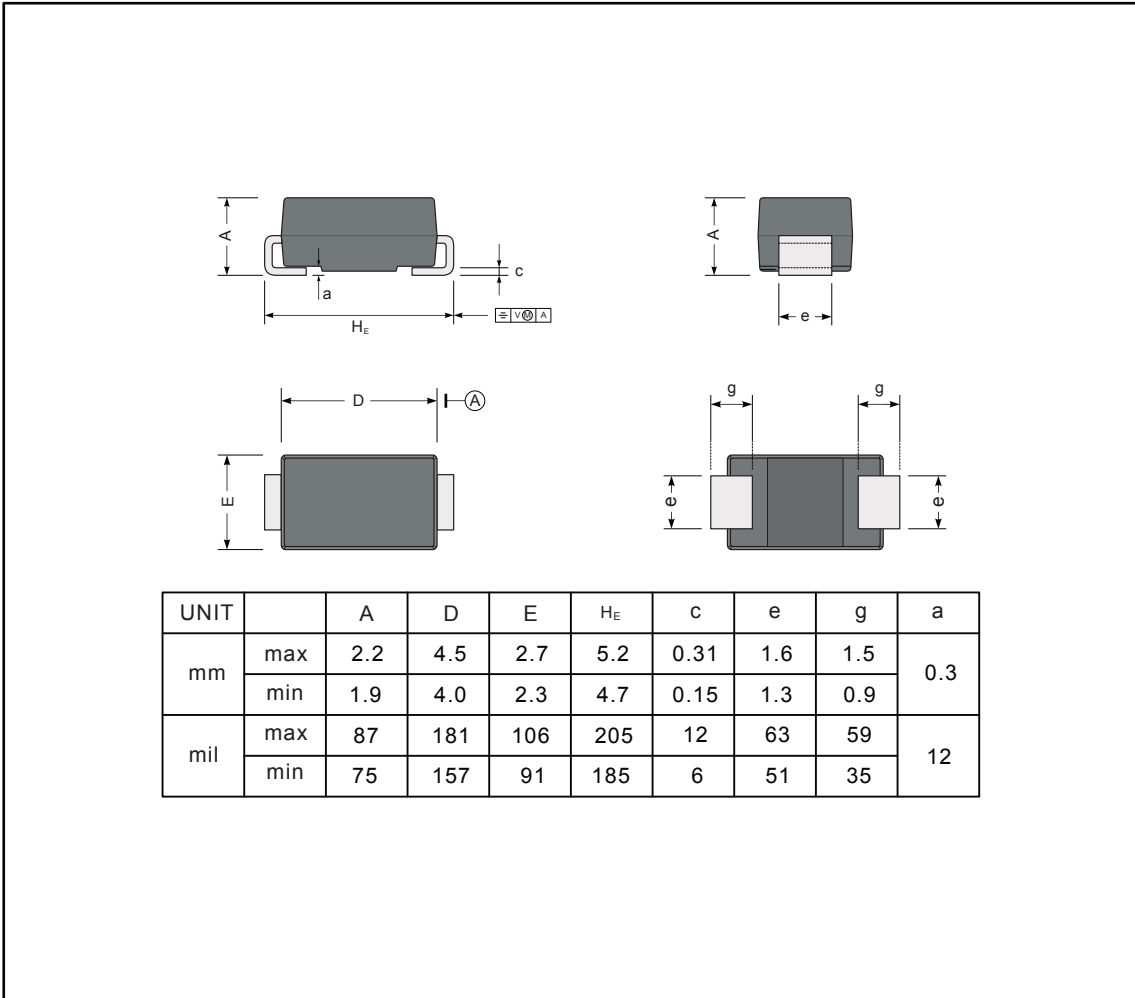


US1A ~ US1M

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



■ The recommended mounting pad size

