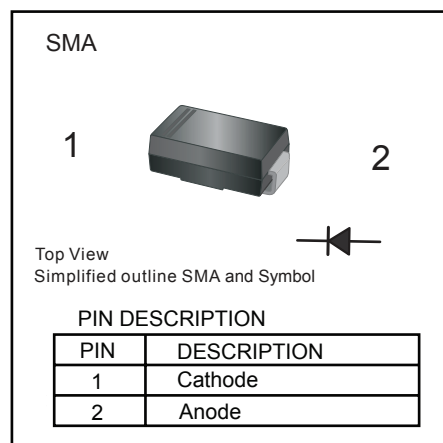


Ultra Fast Rectifier

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			
Maximum Average Forward Rectified Current @T _A = 55°C	I _{F(AV)}	1.0							A
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°C at rated DC blocking voltage T _A =100°C	I _R	5							
		50							
Reverse Recovery Time *1	t _{rr}	50				75			ns
Typical Junction Capacitance *2	C _j	15							pF
Typical Thermal Resistance *3	R _{θJA}	50							°C/W
Junction Temperature	T _j	150							°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

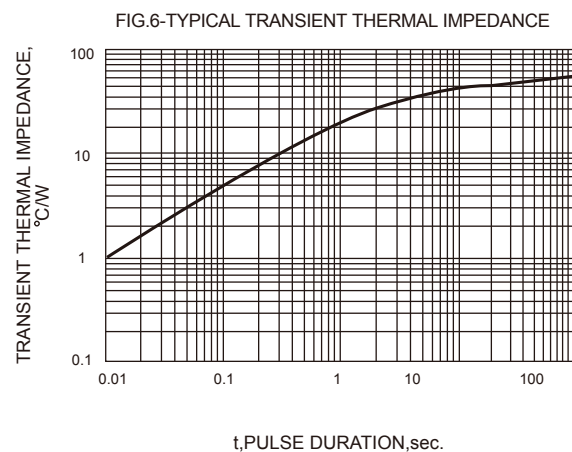
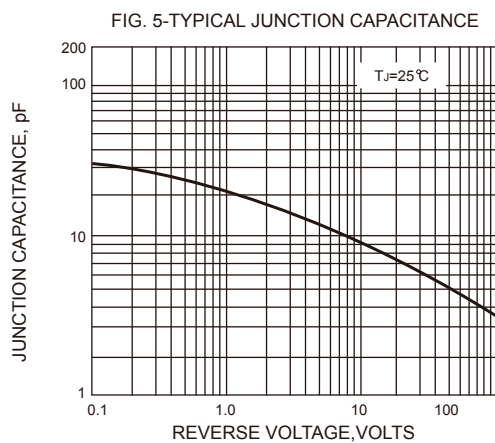
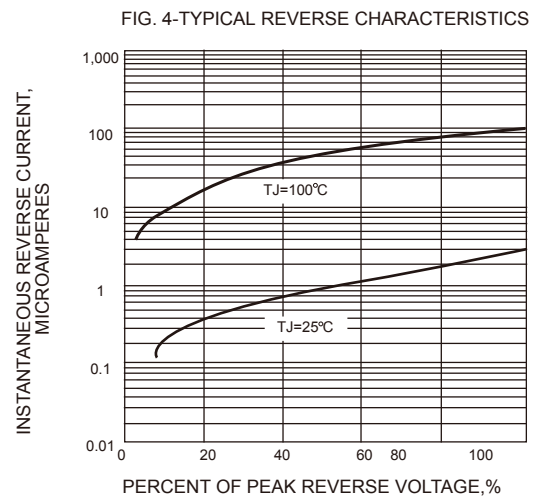
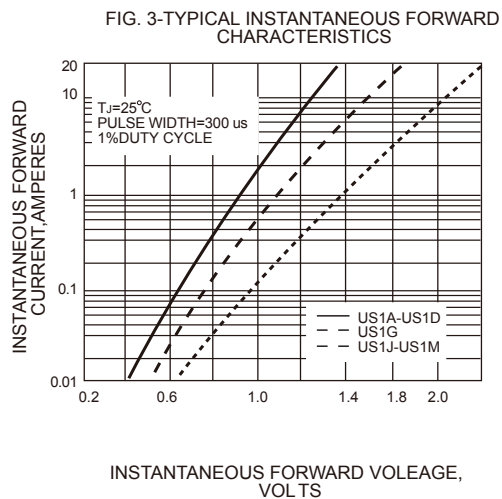
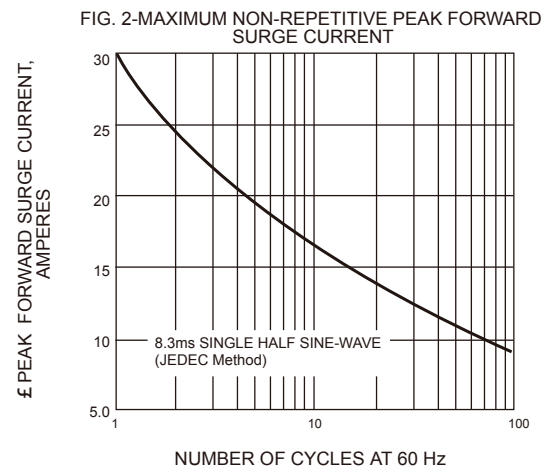
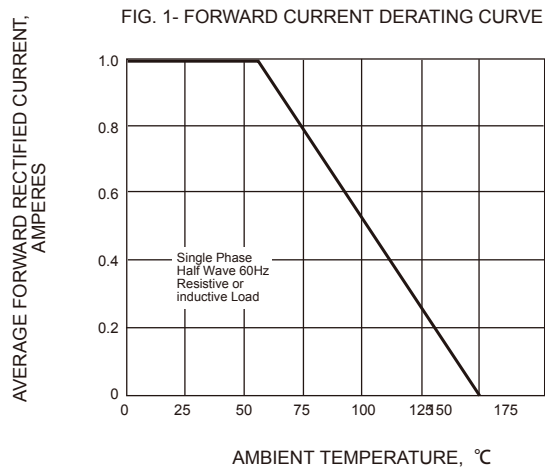
* 3 P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas.

■ Marking

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

US1A ~ US1M

■ Typical Characteristics

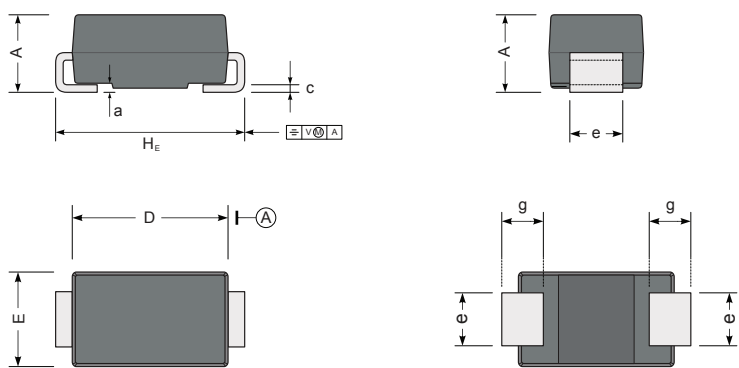


US1A ~ US1M

■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

■ The recommended mounting pad size

