

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode



Applications

- Rectifier

SMA top view

Schematic diagram

Marking

- US1X
- X : From A To M



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Test Conditions	US1							Unit
			A	B	D	G	J	K	M	
V_{RRM}	Repetitive Peak Reverse Voltage		50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS voltage		35	70	140	280	420	560	700	V
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave Resistance load	1.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	30							A
T_{J}, T_{stg}	Storage Temperature Range		-55~+150							$^{\circ}C$

Electrical Characteristics (T=25°C Unless otherwise specified)

Item	Symbol	Condition	US1							Unit
			A	B	D	G	J	K	M	
Peak Forward Voltage	V _F	I _F =1.0A	1.0			1.3	1.7		V	
Maximum reverse recovery time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	50				75		ns	
Peak Reverse Current	I _{RRM1}	V _{RM} =V _{RRM} T _a =25℃	5							μA
	I _{RRM2}	V _{RM} =V _{RRM} T _a =125℃	50							
Thermal Resistance(Typical)	R _{θJ-A}	Between junction and ambient	75							℃/W
	R _{θJ-L}	Between junction and terminal	27							
Juction Capacitance (Typical)	C _j	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C	14			12	6		pF	

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

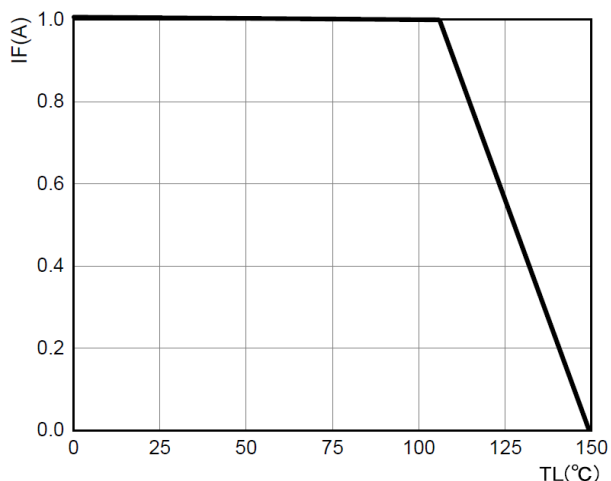
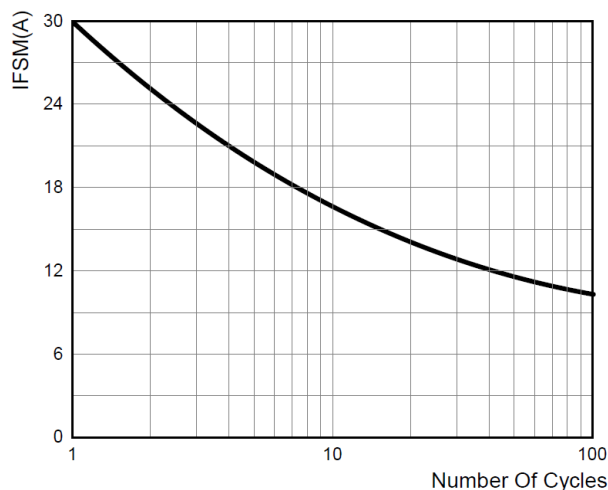
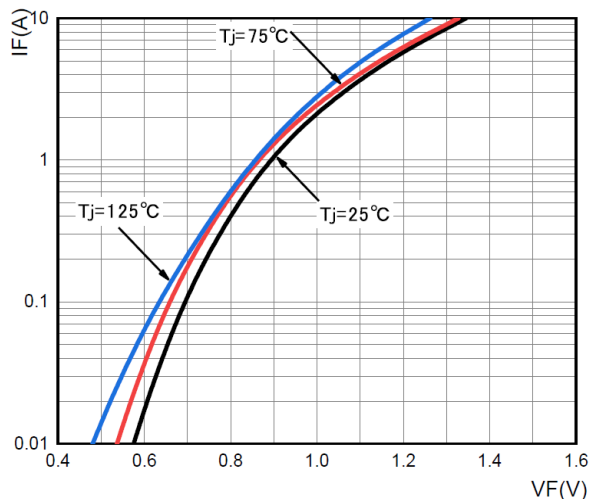


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



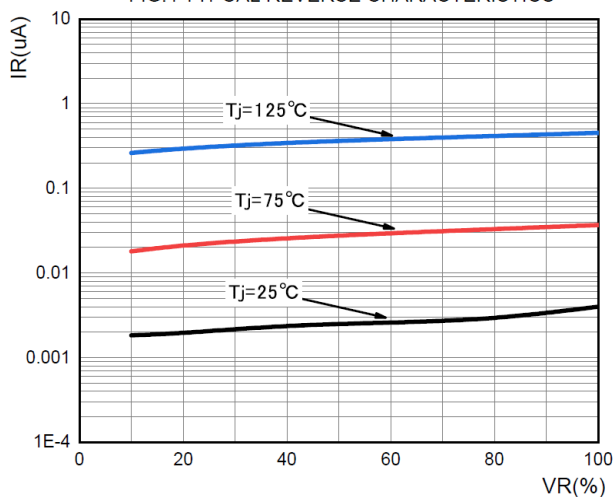
US1A-US1D

FIG.3 : TYPICAL FORWARD CHARACTERISTICS



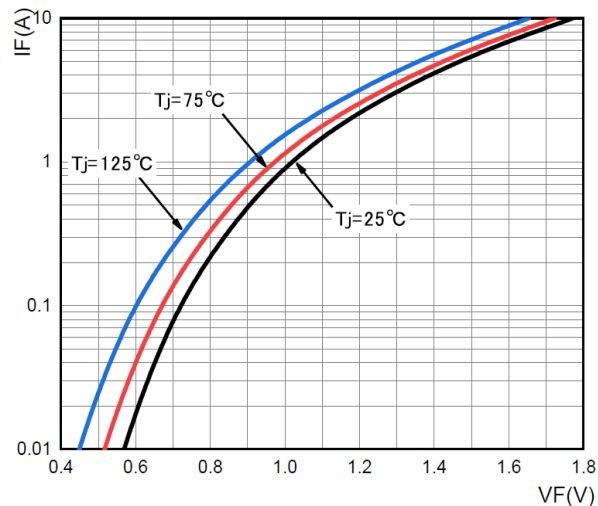
US1A-US1D

FIG.4 TYPICAL REVERSE CHARACTERISTICS



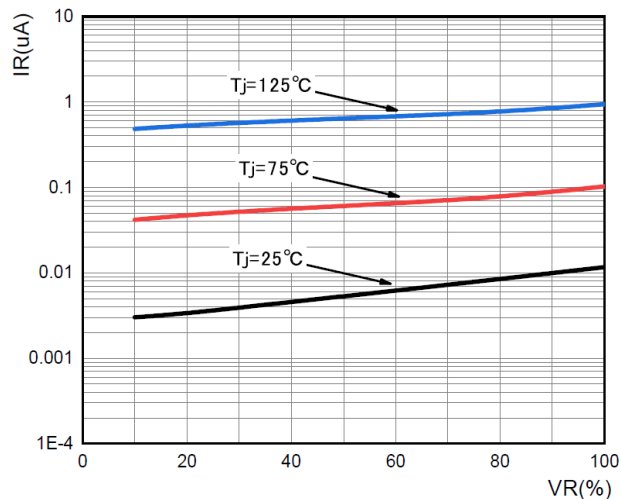
US1G

FIG.5 : TYPICAL FORWARD CHARACTERISTICS



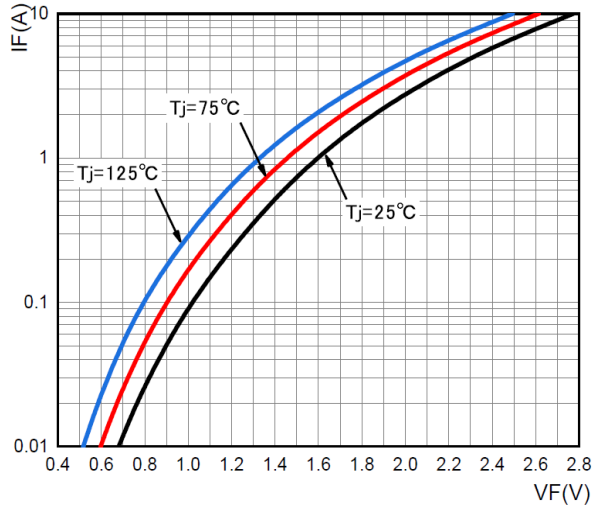
US1G

FIG.6 TYPICAL REVERSE CHARACTERISTICS



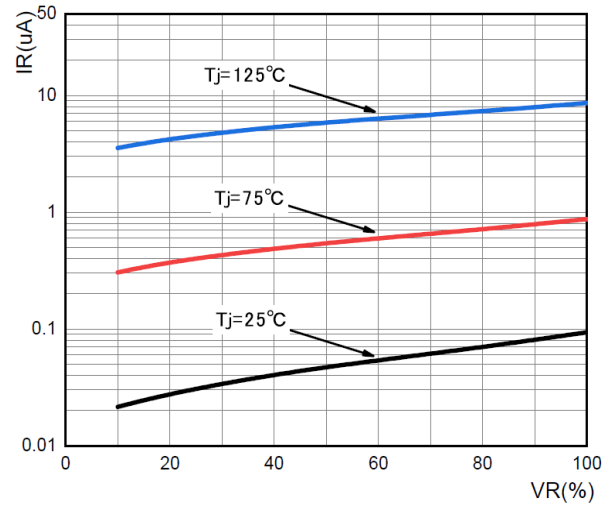
US1J-US1M

FIG.7 : TYPICAL FORWARD CHARACTERISTICS



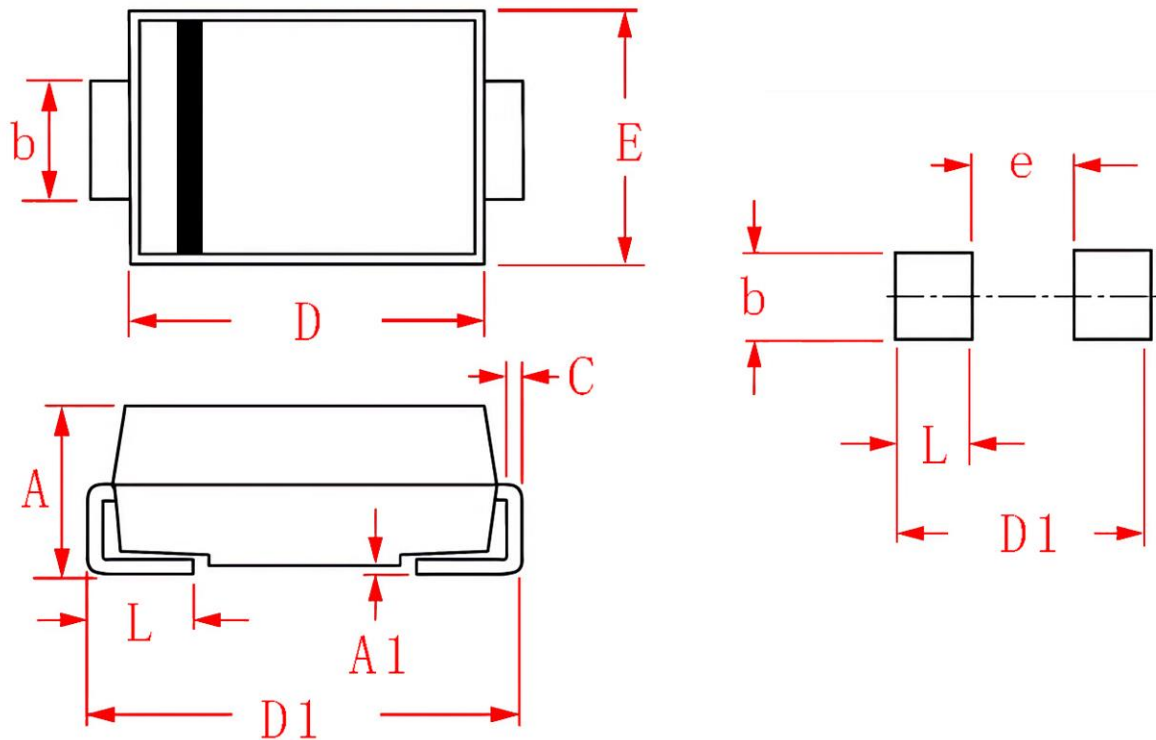
US1J-US1M

FIG.8 TYPICAL REVERSE CHARACTERISTICS



SMA Package information

SMA (DO-214AC)



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.900	2.200	0.075	0.087
A1	0.050	0.200	0.002	0.008
b	1.300	1.600	0.051	0.063
C	0.150	0.310	0.006	0.012
D	4.000	4.500	0.157	0.177
D1	4.700	5.200	0.185	0.205
E	2.300	2.700	0.090	0.106
e	-	1.880	-	0.074
L	0.900	1.500	0.035	0.059