

Features

- $I_{F(AV)}$ 3A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

• US3X

X : From A To M



SMB top view



Schematic diagram



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Test Conditions	US3							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	3.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$	100							A
T_j, T_{stg}	Storage Temperature Range		-55~+150							$^{\circ}\text{C}$

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

Item	Symbol	Condition	US3							Unit
			A	B	D	G	J	K	M	
Peak Forward Voltage	V _F	I _F =3.0A	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	65							℃/W
	R _{θJ-L}	Between junction and terminal	13							
Juction Capacitance (Typical)	C _j	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C	60			30	23		pF	

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on 1" x 1"(25.4mm x 25.4mm) FR4 PCB, double sided copper, with minimum pad layout

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

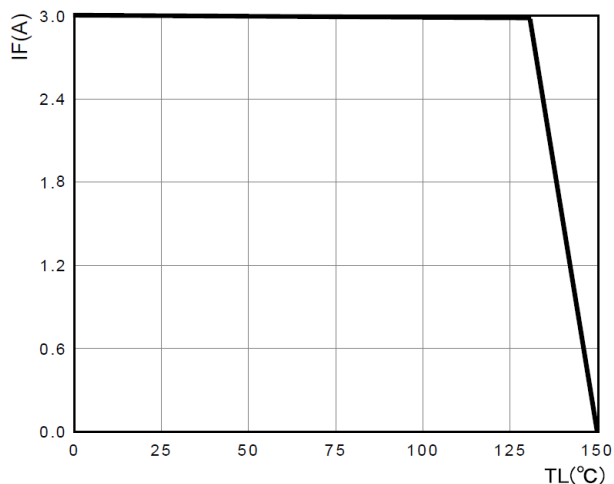
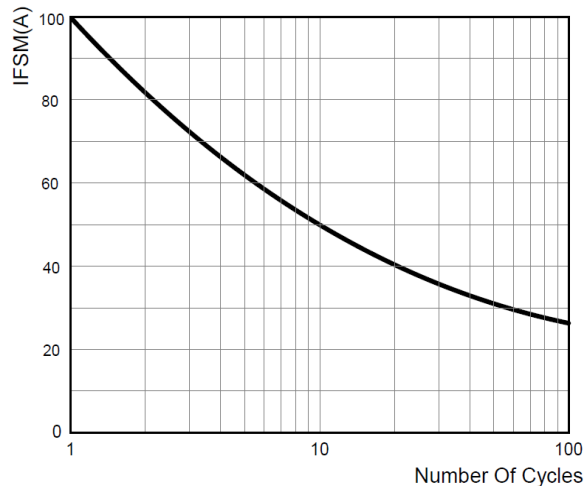
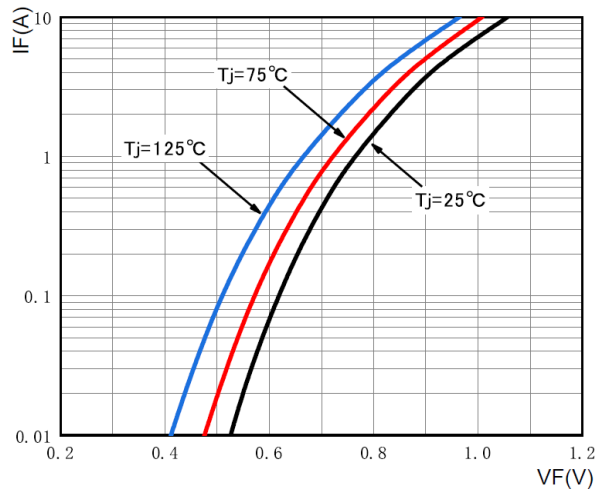


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



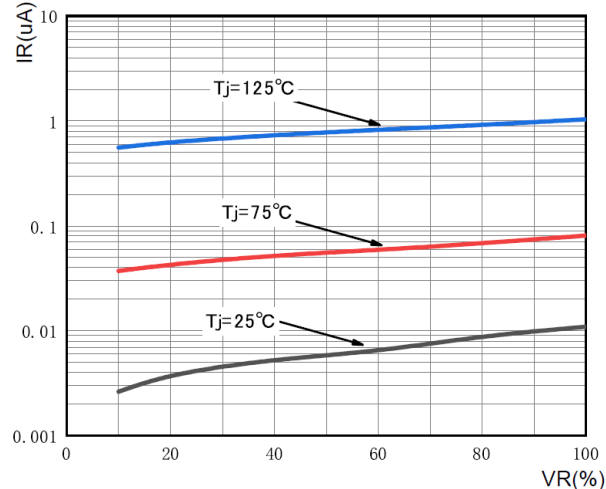
US3A-US3D

FIG.3 : TYPICAL FORWARD CHARACTERISTICS



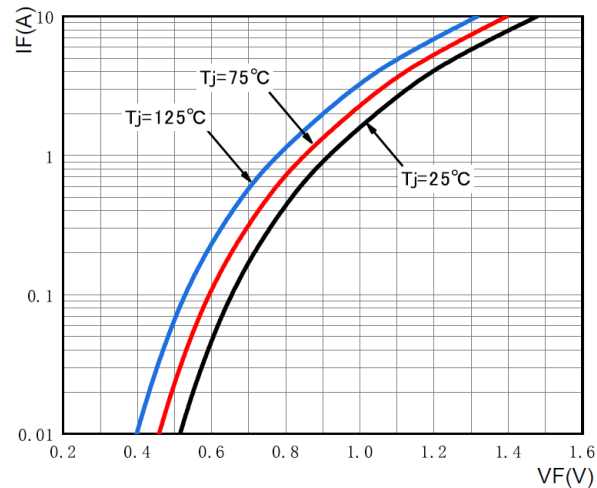
US3A-US3D

FIG.4: TYPICAL REVERSE CHARACTERISTICS



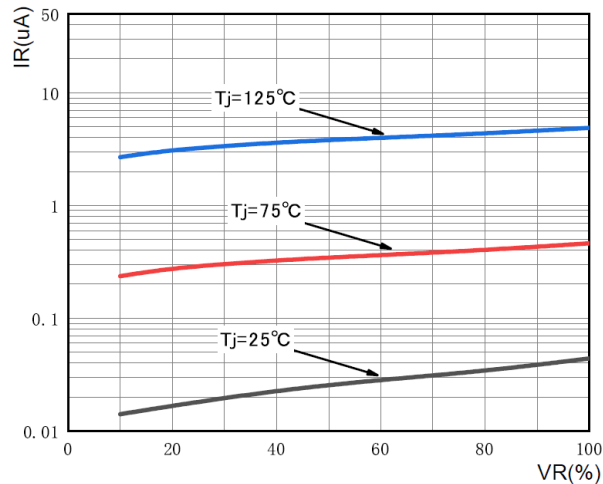
US3G

FIG.5 : TYPICAL FORWARD CHARACTERISTICS



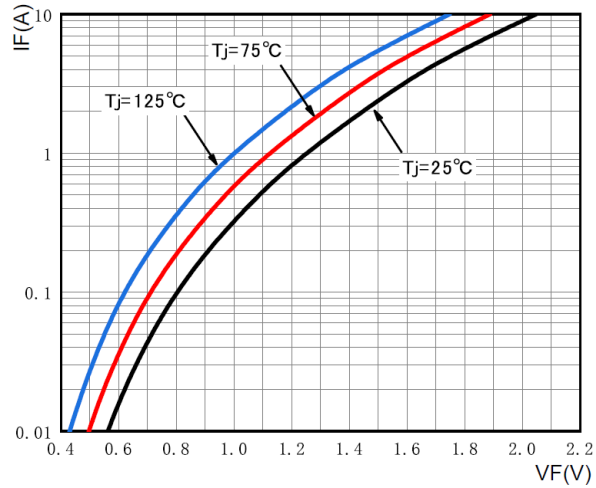
US3G

FIG.6: TYPICAL REVERSE CHARACTERISTICS



US3J-US3M

FIG.7 : TYPICAL FORWARD CHARACTERISTICS



US3J-US3M

FIG.8: TYPICAL REVERSE CHARACTERISTICS

