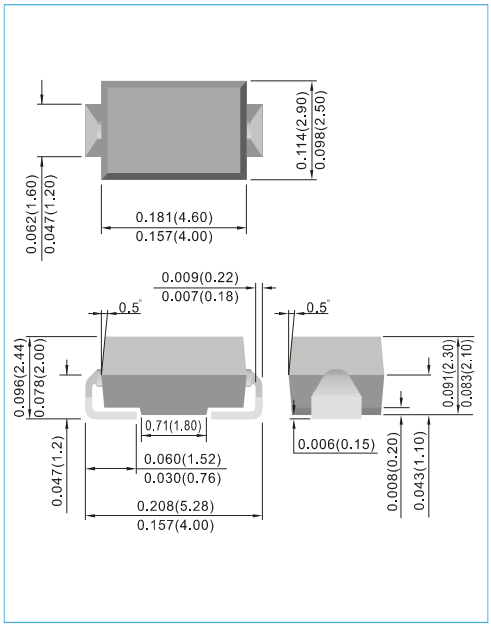
ES1AWG~ES1JWG

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 1 Ampere

SMA(W) Unit : inch(mm)



FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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	ES1AWG	ES1BWG	ES1CWG	ES1DWG	ES1EWG	ES1GWG	ES1JWG	UNITS
Marking		ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Forward Voltage at 1A	V_F	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1							μA
Typical Junction Capacitance	C_J	18							pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	150 22							°C / W
Maximum Reverse Recovery Time (Note 3)	t_{rr}	35							ns
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

NOTES :
1.Mounted on a FR4 PCB, single-sided copper, mini pad.
2.Mounted on a FR4 PCB, single-sided copper, with 76.2 x 114.3mm copper pad area.
3.Reverse Recovery Tset Conditions: I_F=0.5A,I_R=-1A,Irr=-0.25A.

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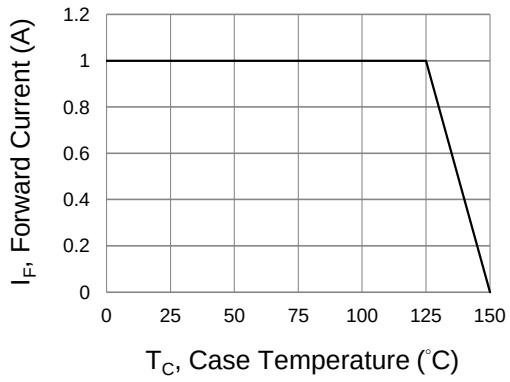


Fig.1 Forward Current Derating Curve

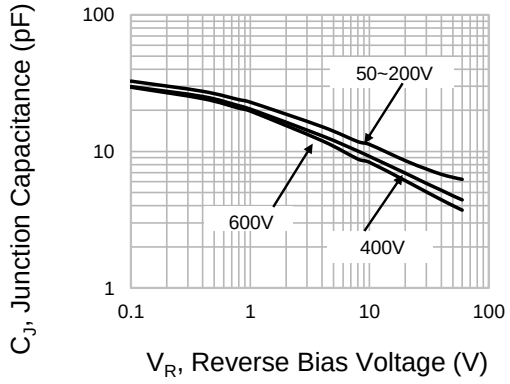


Fig.2 Typical Junction Capacitance

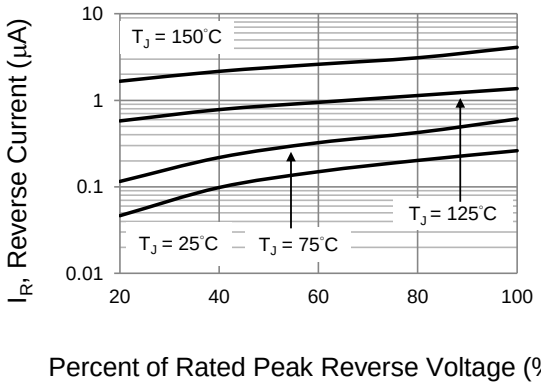


Fig.3 Typical Reverse Characteristics

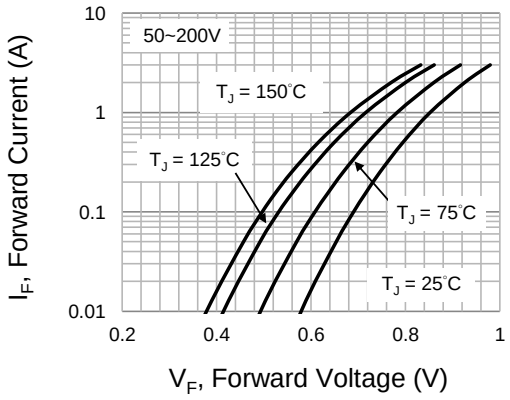


Fig.4 Typical Forward Characteristics

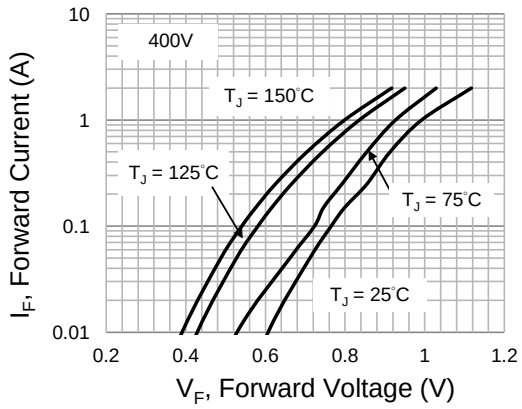


Fig.5 Typical Forward Characteristics

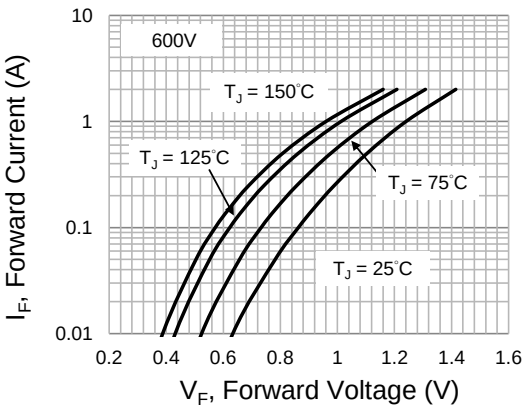
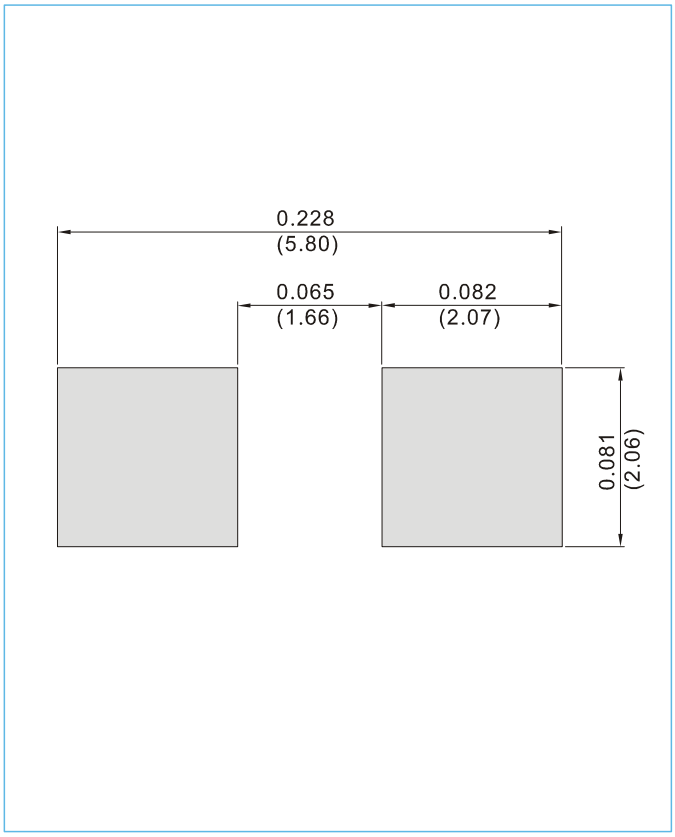


Fig.6 Typical Forward Characteristics

ES1AWG~ES1JWG

MOUNTING PAD LAYOUT

SMA(W) Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 7.5K per 13" plastic Reel

  T/R - 1.8K per 7" plastic Reel

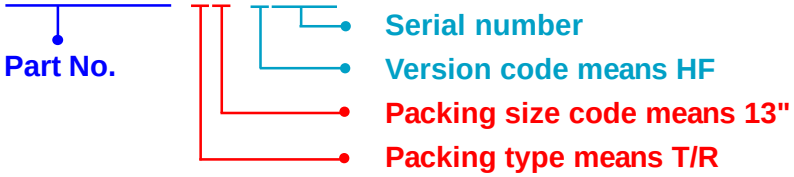
ES1AWG~ES1JWG

Part No_packing code_Version

ES1AWG_R1_00001
ES1AWG_R1_10001
ES1AWG_R2_00001
ES1AWG_R2_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

ES1AWG~ES1JWG

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