



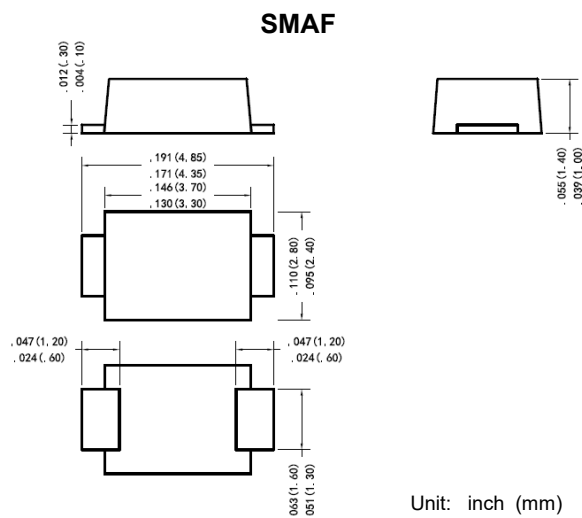
Surface Mount Super Fast Recovery Rectifier Diode

Features

- Glass passivated junction chip
- Ideal for automated placement
- Built-in strain relief
- Super fast recovery time for high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Mechanical Data

- **Package:** SMAF
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end



Maximum Ratings & Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	ES1A AFQ	ES1B AFQ	ES1D AFQ	ES1G AFQ	ES1J AFQ	ES1K AFQ	ES1M AFQ	Unit
Maximum 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	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	1.0							A
Non-repetitive peak forward surgecurrent 8.3 ms singlehalf sine-wave	I _{FSM}	30					25		A
Maximum forward voltage @I _F =1.0A	V _F	0.95			1.25	1.70	3.20		V
Maximum reverse current TA= 25°C	I _R	5							μA
@V _{DC} TA= 125°C		100							
MAX. reverse recovery time I _F =0.5A , I _R =1.0A, I _{RR} =0.25A	T _{RR}	35							nS
Typical thermal resistance (Note 1)	R _{θJA}	105							°C/W
Type junction capacitance V _R =4.0V,f=1MHz	C _J	15							pF
Operating junction temperature rang	T _J	-55 to +150							°C
Storage temperature rang	T _{STG}	-55 to +150							°C

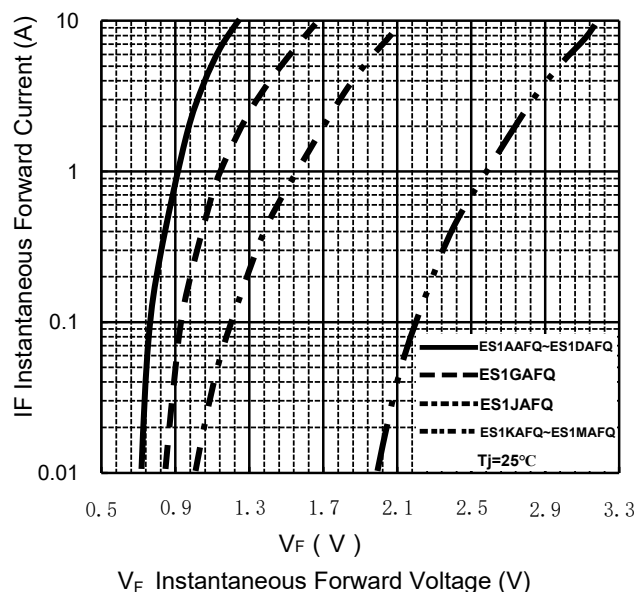
Note:

1) Thermal resistance from junction to ambient, PCB mounted.

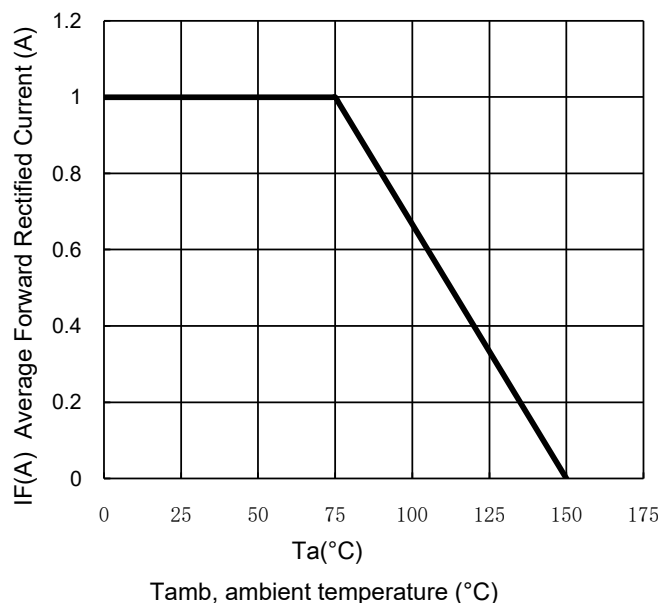


Characteristic Curves

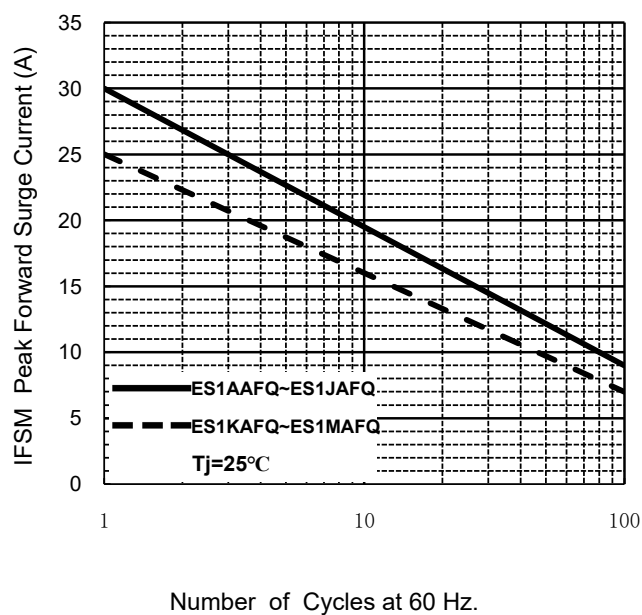
TYPICAL FORWARD CHARACTERISTIC



FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE
PEAKFORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTICS

