

ES2A-F THRU ES2J-F

2.0A Surface Mount Super Fast Rectifiers-50-600V

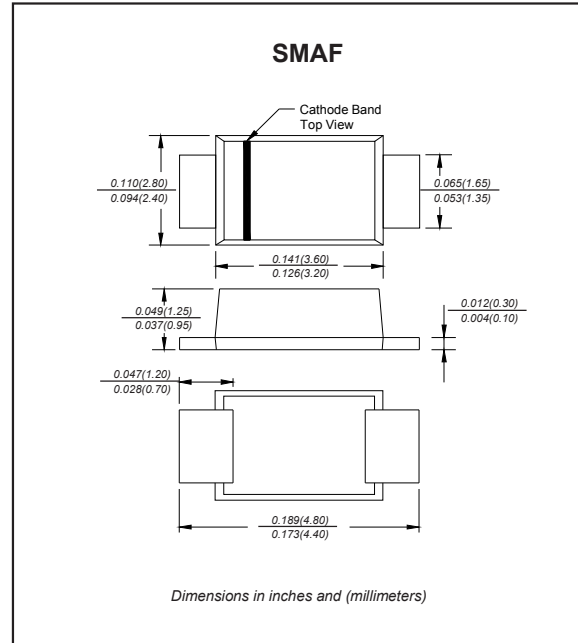
Features

- ▶ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ▶ For surface mounted applications
- ▶ Super 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
- ▶ Glass passivated chip junction
- ▶ Compliant to RoHS Directive 2011/65/EU
- ▶ Compliant to Halogen-free

Mechanical data

- ▶ **Case:** JEDEC SMAF molded plastic body
- ▶ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ▶ **Polarity:** Color band denotes cathode end
- ▶ **Mounting Position:** Any
- ▶ **Weight:** 0.0018 ounce, 0.064 grams

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I _O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I _{FSM}			50	A
Reverse current	V _R = V _{RRM} T _A = 25°C	I _R			5.0	μA
	V _R = V _{RRM} T _A = 100°C				50	
Thermal resistance	Junction to ambient NOTE 1	R _{θJA}		40		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C _J		60		pF
Storage temperature		T _{STG}	-65		+150	°C

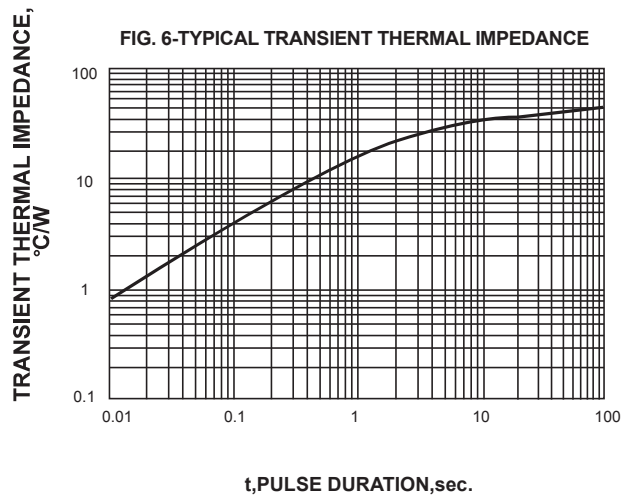
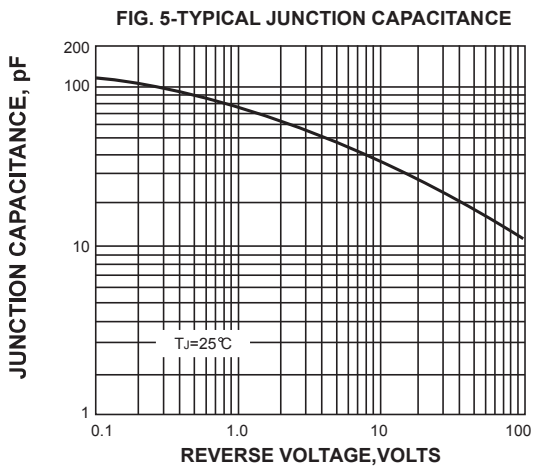
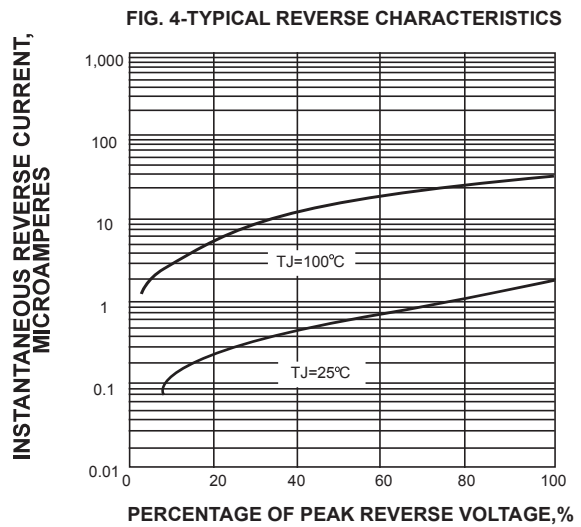
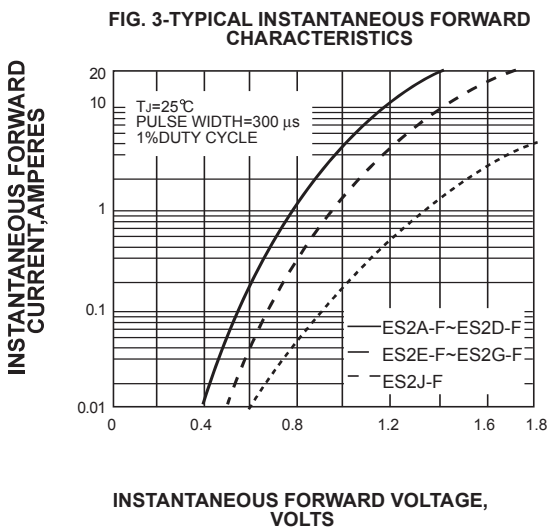
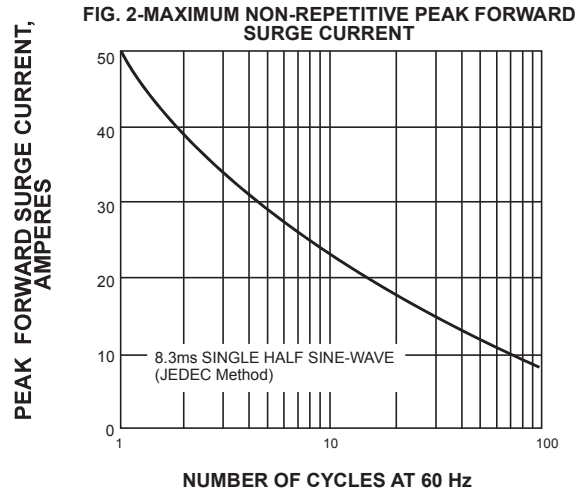
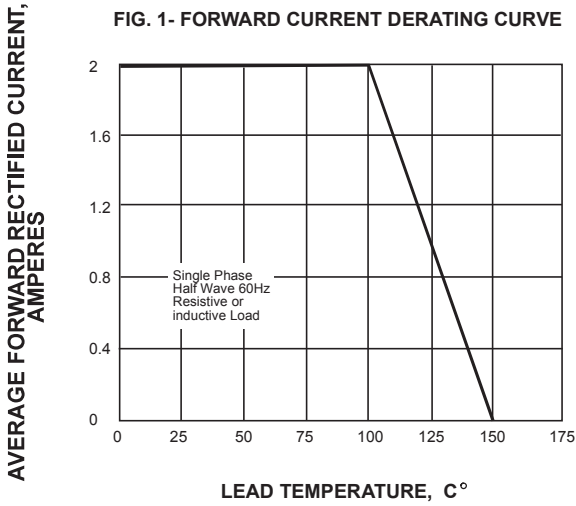
SYMBOLS	V _{RRM} ^{*1} (V)	V _{RMS} ^{*2} (V)	V _R ^{*3} (V)	V _F ^{*4} (V)	t _{rr} ^{*5} (ns)	Operating temperature T _J , (°C)
ES2A-F	50	35	50	0.95	35	-55 to +150
ES2B-F	100	70	100			
ES2C-F	150	105	150			
ES2D-F	200	140	200			
ES2E-F	300	210	300	1.25		
ES2G-F	400	280	400			
ES2J-F	600	420	600			

- *1 Repetitive peak reverse voltage
- *2 RMS voltage
- *3 Continuous reverse voltage
- *4 Maximum forward voltage@I_F=2.0A
- *5 Maximum Reverse recovery time, note 2

Note: 1.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas
 2. Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A



ES2A-F THRU ES2J-F

Rating and characteristic curves



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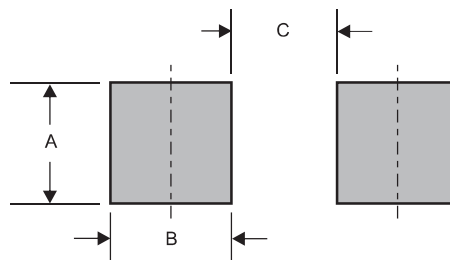
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
ES2A-F	E2A
ES2B-F	E2B
ES2C-F	E2C
ES2D-F	E2D
ES2E-F	E2E
ES2G-F	E2G
ES2J-F	E2J

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMAF	0.110 (2.80)	0.063 (1.60)	0.079 (2.00)

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