



Surface Mount Transient Voltage Suppressor
600W Peak Power Pulse Voltage 5.0 to 85V



FEATURES

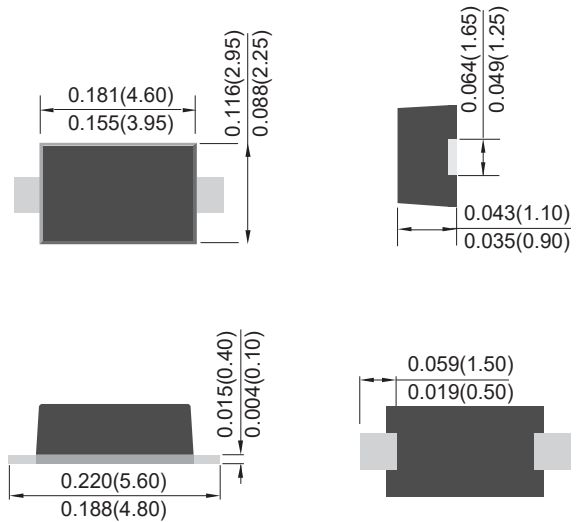
- Constructed with Glass Passivated Die
- 600W peak pulse power Dissipation
- Excellent clamping capability
- Unidirectional
- Very fast response time

MECHANICAL DATA

- Case : SMAF/DO-221AC
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band

SMAF/DO-221AC

Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	Limits	Units
Peak power dissipation with a 10/1000μs waveform	P _{PP}	600	W
Power dissipation on infinite heatsink at T _A =50 °C	P _D	3	W
Peak forward surge current, 8.3ms single half sine-wave unidirectional only (Note 1)	I _{FSM}	60	A
Maximum instantaneous forward voltage at 25 A for unidirectional only	V _F	3.5	V
Operating and Storage Temperature Range	T _J , T _{STG}	-55 ~ +150	°C

NOTES :

1. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

DEVICE CHARACTERISTICS

P6SMAFJ Series

Part Number	Marking Code	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Clamping Voltage	Peak Pulse Current	Reverse Leakage
			$V_{BR@I_T}$					
		V_{RRM}	Min	Max				
		V	V	V	mA	V	A	uA
600W Transient Voltage Suppressor								
P6SMAFJ5.0A	6J5.0A	5.0	6.40	7.00	10.0	9.2	65.3	800.0
P6SMAFJ6.0A	6J6.0A	6.0	6.67	7.37	10.0	10.3	58.3	800.0
P6SMAFJ6.5A	6J6.5A	6.5	7.22	7.98	10.0	11.2	53.6	500.0
P6SMAFJ7.0A	6J7.0A	7.0	7.78	8.60	10.0	12.0	50.0	200.0
P6SMAFJ7.5A	6J7.5A	7.5	8.33	9.21	1.0	12.9	46.6	100.0
P6SMAFJ8.0A	6J8.0A	8.0	8.89	9.83	1.0	13.6	44.2	50.0
P6SMAFJ8.5A	6J8.5A	8.5	9.44	10.40	1.0	14.4	41.7	20.0
P6SMAFJ9.0A	6J9.0A	9.0	10.00	11.10	1.0	15.4	39.0	10.0
P6SMAFJ10A	6J10A	10.0	11.10	12.30	1.0	17.0	35.3	5.0
P6SMAFJ11A	6J11A	11.0	12.20	13.50	1.0	18.2	33.0	1.0
P6SMAFJ12A	6J12A	12.0	13.30	14.70	1.0	19.9	30.2	1.0
P6SMAFJ13A	6J13A	13.0	14.40	15.90	1.0	21.5	28.0	1.0
P6SMAFJ14A	6J14A	14.0	15.60	17.20	1.0	23.2	25.9	1.0
P6SMAFJ15A	6J15A	15.0	16.70	18.50	1.0	24.4	24.6	1.0
P6SMAFJ16A	6J16A	16.0	17.80	19.70	1.0	26.0	23.1	1.0
P6SMAFJ17A	6J17A	17.0	18.90	20.90	1.0	27.6	21.8	1.0
P6SMAFJ18A	6J18A	18.0	20.00	22.10	1.0	29.2	20.6	1.0
P6SMAFJ19A	6J19A	19.0	21.10	23.30	1.0	30.8	19.5	1.0
P6SMAFJ20A	6J20A	20.0	22.20	24.50	1.0	32.4	18.6	1.0
P6SMAFJ22A	6J22A	22.0	24.40	26.90	1.0	35.5	16.9	1.0
P6SMAFJ24A	6J24A	24.0	26.70	29.50	1.0	38.9	15.5	1.0
P6SMAFJ26A	6J26A	26.0	28.90	31.90	1.0	42.1	14.3	1.0
P6SMAFJ28A	6J28A	28.0	31.10	34.40	1.0	45.4	13.3	1.0
P6SMAFJ30A	6J30A	30.0	33.30	36.80	1.0	48.4	12.4	1.0
P6SMAFJ33A	6J33A	33.0	36.70	40.60	1.0	53.3	11.3	1.0
P6SMAFJ36A	6J36A	36.0	40.00	44.20	1.0	58.1	10.4	1.0
P6SMAFJ40A	6J40A	40.0	44.40	49.10	1.0	64.5	9.3	1.0
P6SMAFJ43A	6J43A	43.0	47.80	52.80	1.0	69.4	8.7	1.0
P6SMAFJ45A	6J45A	45.0	50.00	55.30	1.0	72.7	8.3	1.0
P6SMAFJ48A	6J48A	48.0	53.30	58.90	1.0	77.4	7.8	1.0
P6SMAFJ51A	6J51A	51.0	56.70	62.70	1.0	82.4	7.3	1.0
P6SMAFJ54A	6J54A	54.0	60.00	66.30	1.0	87.1	6.9	1.0
P6SMAFJ58A	6J58A	58.0	64.40	71.20	1.0	93.6	6.5	1.0
P6SMAFJ60A	6J60A	60.0	66.70	73.70	1.0	96.8	6.2	1.0
P6SMAFJ64A	6J64A	64.0	71.10	78.60	1.0	103.0	5.9	1.0
P6SMAFJ70A	6J70A	70.0	77.80	86.00	1.0	113.0	5.3	1.0
P6SMAFJ75A	6J75A	75.0	83.30	92.10	1.0	121.0	5.0	1.0

DEVICE CHARACTERISTICS

P6SMAFJ Series

Part Number	Marking Code	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Clamping Voltage	Peak Pulse Current	Reverse Leakage
			$V_{BR@I_T}$		I_T	$V_C@I_{PP}$		$I_R@V_{RRM}$
		V_{RRM}	Min	Max			I_{PP}	I_R
		V	V	V	mA	V	A	uA
600W Transient Voltage Suppressor								
P6SMAFJ78A	6J78A	78.0	86.70	95.80	1.0	126.0	4.8	1.0
P6SMAFJ85A	6J85A	85.0	94.40	104.00	1.0	137.0	4.4	1.0

NOTES :

2. Suffix 'A ' denotes 5% tolerance device.

DEVICE CHARACTERISTICS

P6SMAFJ Series

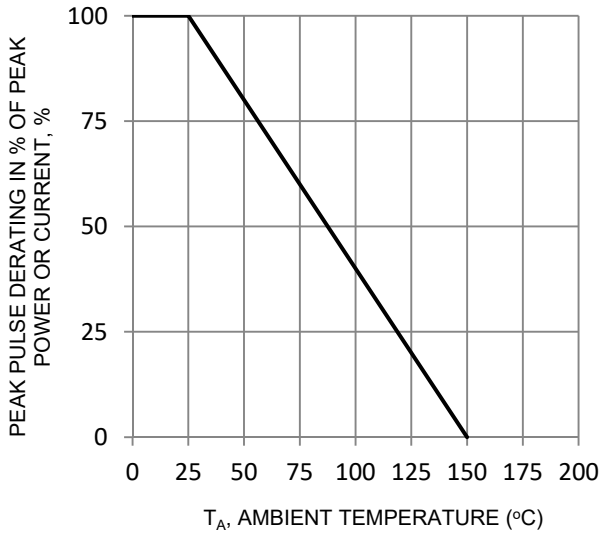


Fig.1 DERATING CURVE

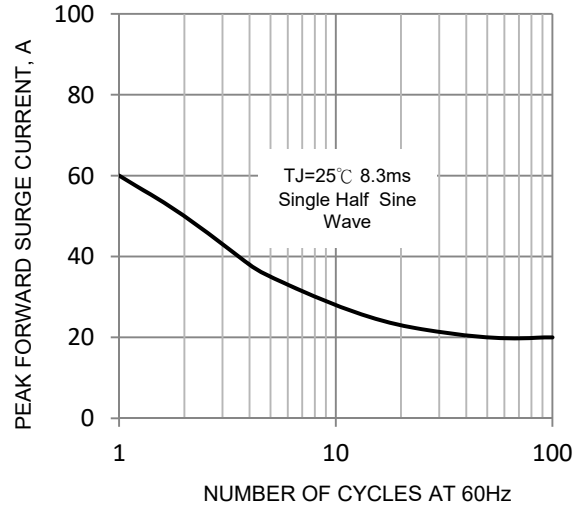


Fig.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

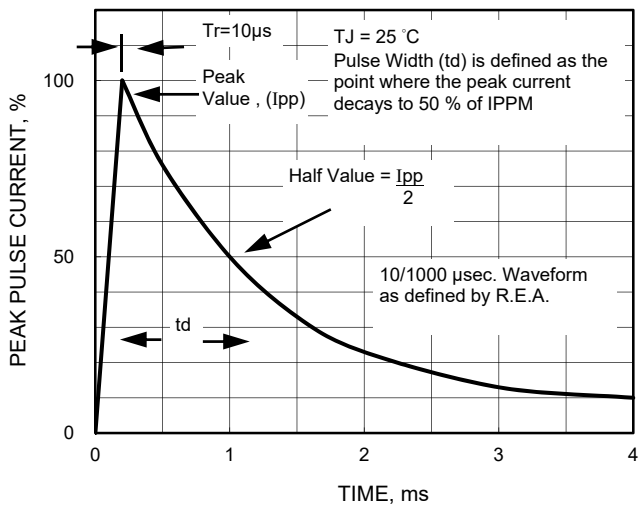


Fig.3 PULSE WAVE FORM