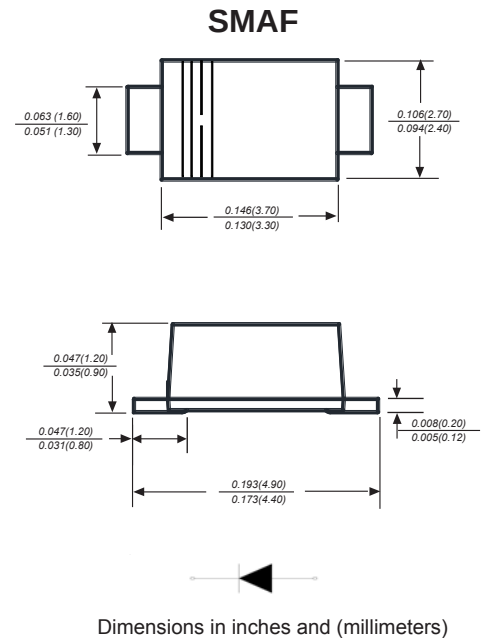


Features

1. The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
2. For surface mounted applications
3. Metal silicon junction, majority carrier conduction
4. Low power loss, high efficiency
5. Built-in strain relief, ideal for automated placement
6. High forward surge current capability
7. High temperature soldering guaranteed:
260 °C/10 seconds at terminals

Mechanical Data

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



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

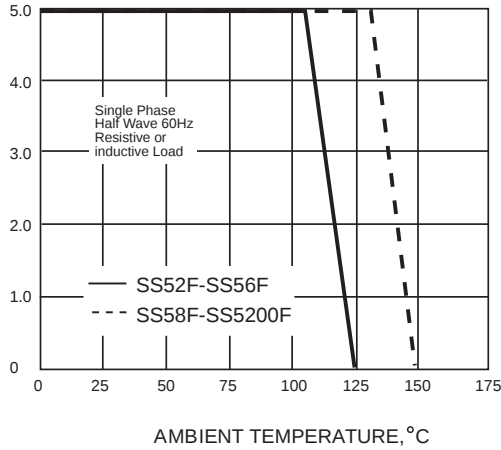
Parameter	SYMBOLS	SS52F	SS53F	SS54F	SS55F	SS56F	SS58F	SS510F	SS5150F	SS5200F	UNITS
Marking Code		SS52F	SS53F	SS54F	SS55F	SS56F	SS58F	SS510F	SS5150F	SS5200F	
Maximum repetitive peak reverse voltage	V _{RMM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)	I _(AV)	5.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I _{FSM}	150									A
Maximum instantaneous forward voltage at 5.0A	V _F	0.55			0.70		0.85			0.95	V
Maximum DC reverse current T _A =25℃ at rated DCblocking voltage T _A =125℃	I _R	0.5							0.2		mA
		20.0					10.0		2.0		
Typical junction capacitance (NOTE 1)	C _J	200									pF
Typical thermal resistance (NOTE 2)	R _{θJA}	75.0									℃/W
Operating junction temperature range	T _J	-55 to +125									℃
Storage temperature range	T _{STG}	-55 to +150									℃

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 2.0x2.0" (5.0x5.0cm) copper pad areas.
 3. The typical data above is for reference only.

Typical Characteristics

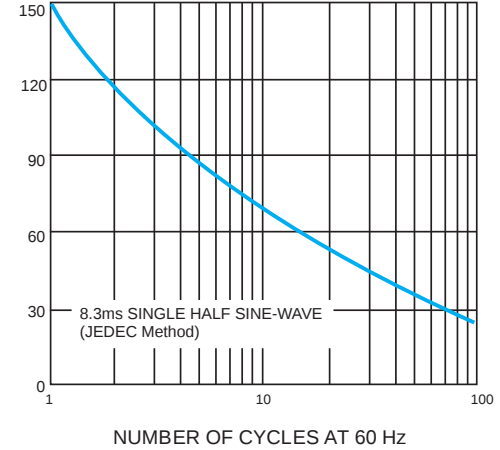
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



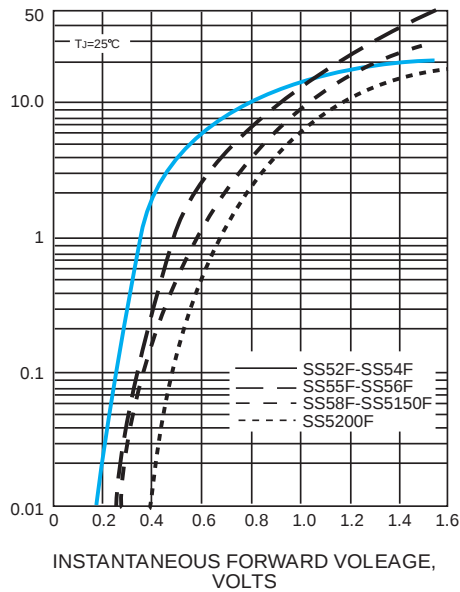
PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



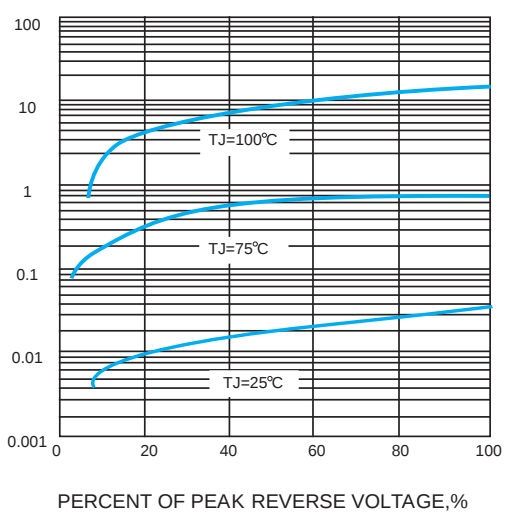
INSTANTANEOUS FORWARD
CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



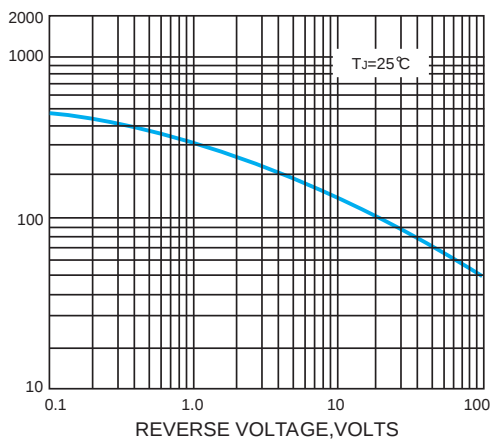
INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



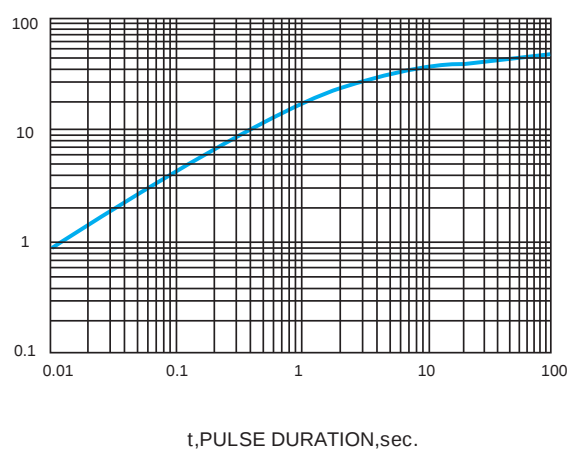
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



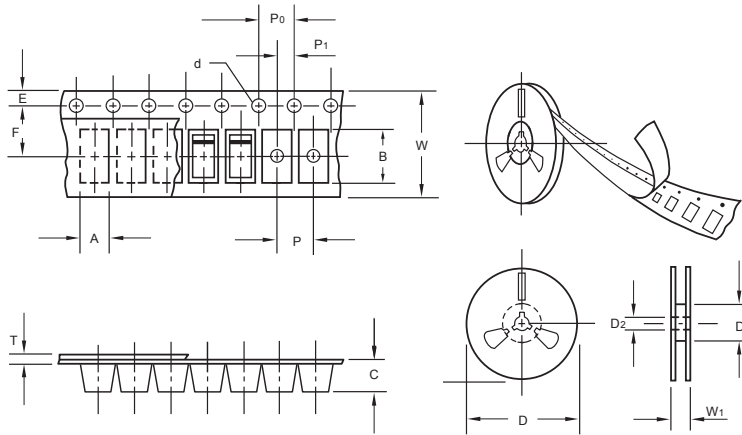
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER SS52F THRU SS5200F

Packing information



unit:mm

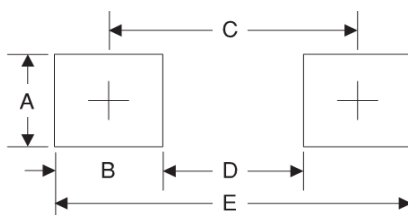
Item	Symbol	Tolerance	SMAF
Carrier width	A	0.1	2.80
Carrier length	B	0.1	4.75
Carrier depth	C	0.1	1.42
Sprocket hole	d	0.05	1.50
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D ₁	min	54.40
Feed hole diameter	D ₂	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.05
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P ₀	0.1	4.00
Embossment center	P ₁	0.1	2.00
Overall tape thickness	T	0.1	0.30
Tape width	W	0.3	8.00
Reel width	W ₁	1.0	12.30

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMAF	7"	3,000	4.0	6,000	210*208*203	178	400*265*400	120,000	10.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.8	0.071
B	1.6	0.063
C	3.8	0.150
D	2.2	0.087
E	5.4	0.213