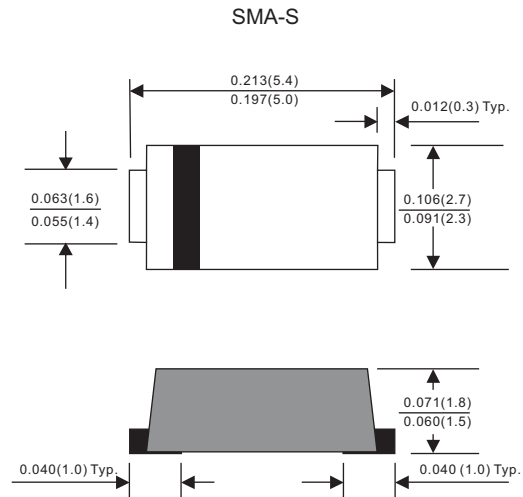




Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"

Package outline



Dimensions in inches and (millimeters)

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMA-S
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.05 gram

Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC method)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^\circ\text{C}$	I_R			0.5	mA
	$V_R = V_{RRM} \quad T_J = 125^\circ\text{C}$				10	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		64		$^\circ\text{C/W}$
	Junction to case	$R_{\theta JC}$		32		$^\circ\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		160		pF
Storage temperature		T_{STG}	-65		+111	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J ($^\circ\text{C}$)
PFM220-S	20	14	20	0.50	-55 to +125
PFM230-S	30	21	30		
PFM240-S	40	28	40		
PFM245-S	45	31.5	45		
PFM250-S	50	35	50	0.70	-55 to +150
PFM260-S	60	42	60		
PFM280-S	80	56	80	0.85	
PFM2100-S	100	70	100		
PFM2150-S	150	105	150	0.90	
PFM2200-S	200	140	200		

*1 Repetitive Peak Reverse Voltage

*2 RMS Voltage

*3 Continuous Reverse Voltage

*4 Maximum Forward Voltage @ $I_F=2.0\text{A}$

Rating and characteristic curves (PFM220-S THRU PFM2200-S)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

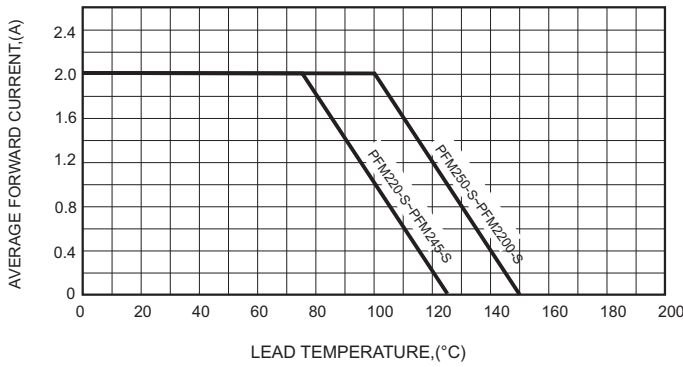


FIG.2-TYPICAL FORWARD CHARACTERISTICS

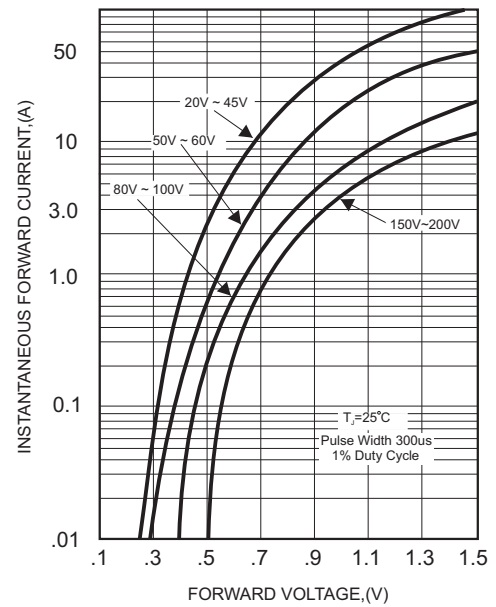


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

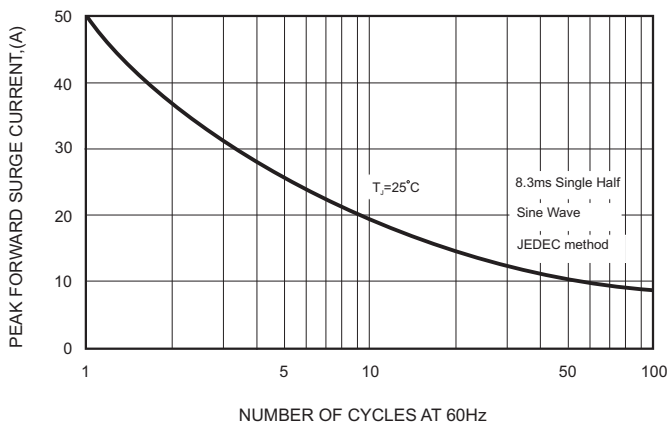


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

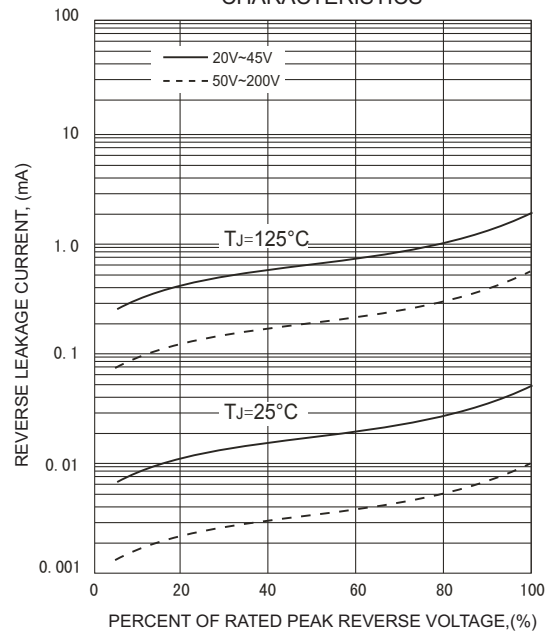
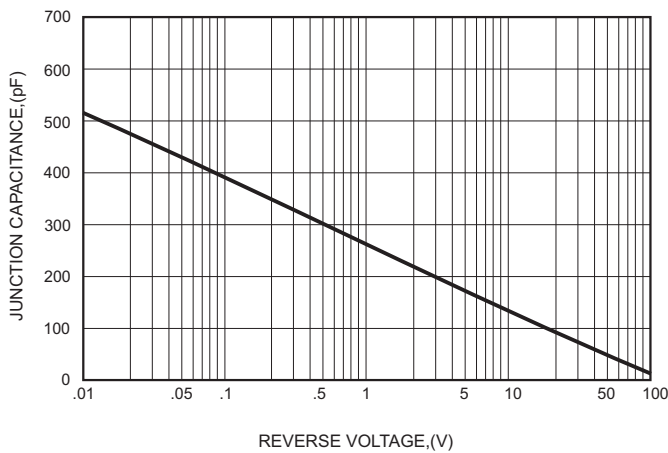




FIG.4-TYPICAL JUNCTION CAPACITANCE



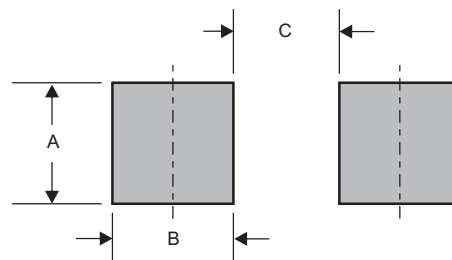
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
PFM220 -S	SK22
PFM230-S	SK23
PFM240-S	SK24
PFM245-S	SK24
PFM250-S	SK25
PFM260-S	SK26
PFM280-S	SK28
PFM2100-S	S210
PFM2150-S	S215
PFM2200-S	S220

Suggested solder pad layout



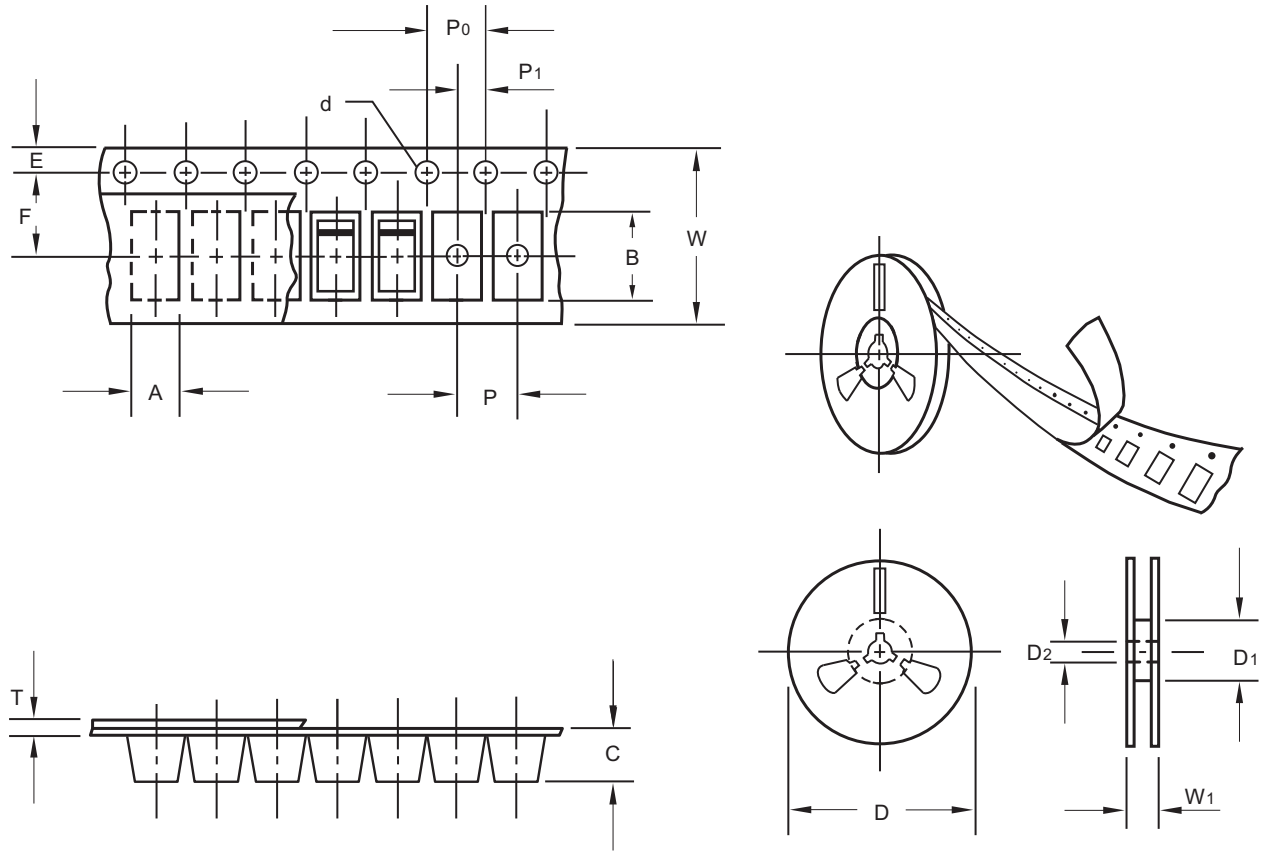
Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA-S	0.063 (1.60)	0.059 (1.50)	0.110 (2.80)

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)
SMA-S	7"	2,000	4.0	20,000	183*170*183	178	382*356*387	160,000	15.5
	13"	7,500	4.0	15,000	337*337*37	330	350*330*360	120,000	14.2

Packing information



unit:mm

Item	Symbol	Tolerance	SMA-S
Carrier width	A	0.1	2.90
Carrier length	B	0.1	5.50
Carrier depth	C	0.1	2.10
Sprocket hole	d	0.1	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D1	min	50.00
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	62.00
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.23
Tape width	W	0.3	12.00
Reel width	W1	1.0	18.00

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