

Surface Mount Rectifiers

P120JCF--P120KCF

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- RoHS Compliant



Mechanical Data

- Case: SMCF molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic	Symbol	P120JCF	P120KCF	Units
Peak repetitive reverse voltage	V _{RRM}	600	800	V
RMS reverse voltage	V _{RMS}	420	560	V
DC blocking voltage	V _{DC}	600	800	V
Maximum average forward output current	I _{F(AV)}	12		A
Peak forward surge current, 8.3ms single half-sine-wave	@T _J = 25°C I _{FSM}	240		A

Thermal Characteristics

Parameter	Symbol	P120JCF	P120KCF	Units
Typical thermal resistance (Note 1)	R _{θJA}	27		°C /W
	R _{θJC}	10		
	R _{θJL}	4		
Operating junction temperature range	T _J	- 55 ---- + 150		°C
Storage temperature range	T _{STG}	- 55 ---- + 150		°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

Surface Mount Rectifiers**P120JCF--P120KCF****Electrical Characteristics** (@ $T_A = 25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	V_F	$I_F=12\text{A}$		0.98	1.05	V
Maximum Reverse current	I_R	Rated V_R ,	@ $T_A=25^{\circ}\text{C}$	0.5	2.0	μA
			@ $T_A=150^{\circ}\text{C}$	50	150	

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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1-Forward Current Derating Curve

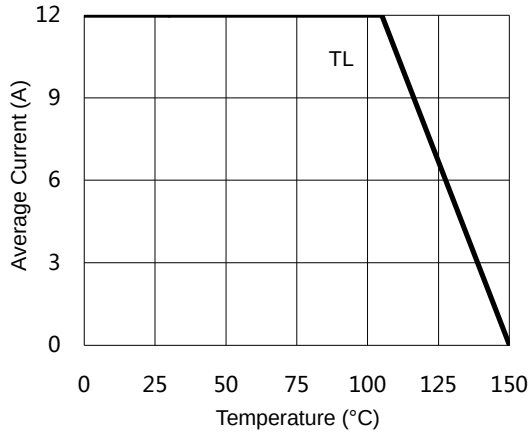


Fig.2- Surge Current Derating Curve

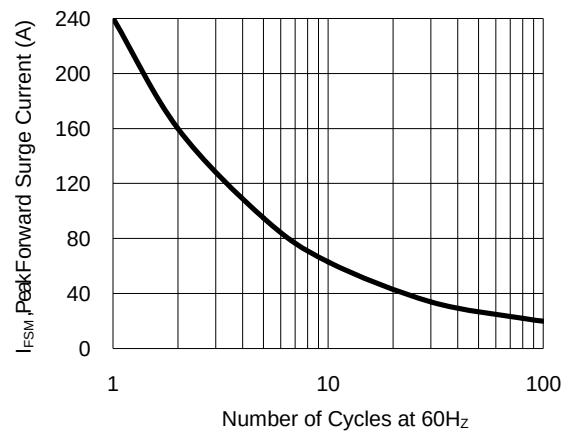


Fig.3- Typical Forward Voltage Characteristic

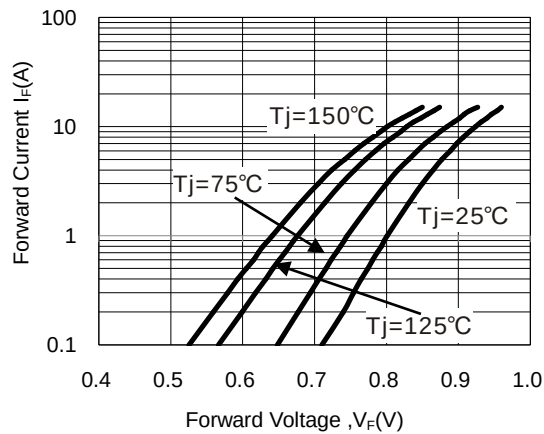
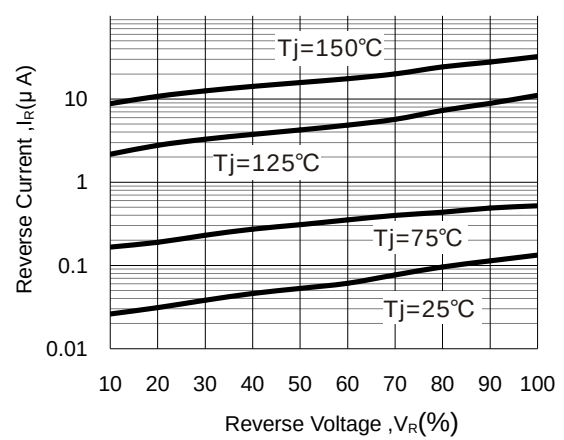


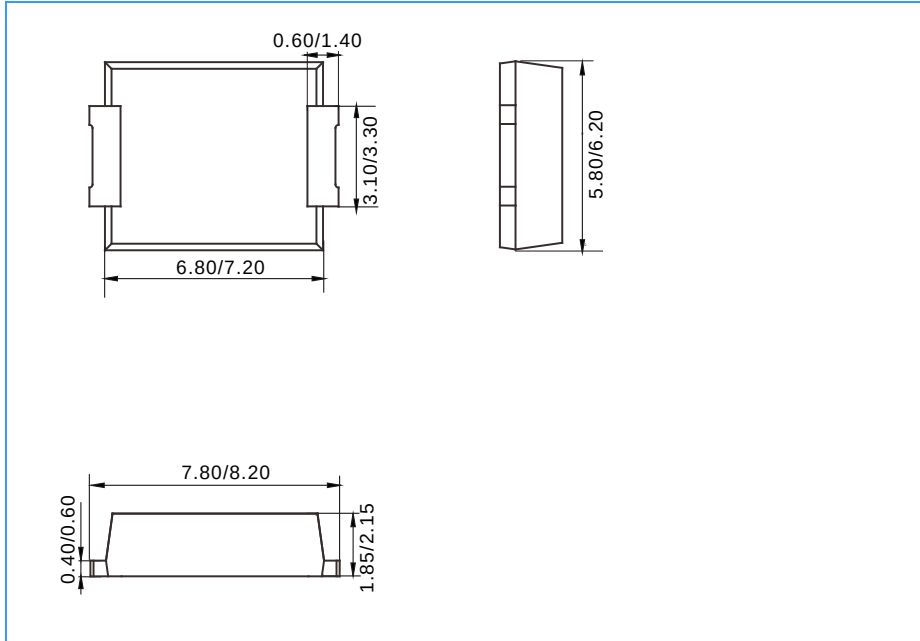
Fig.4- Typical Reverse Characteristic



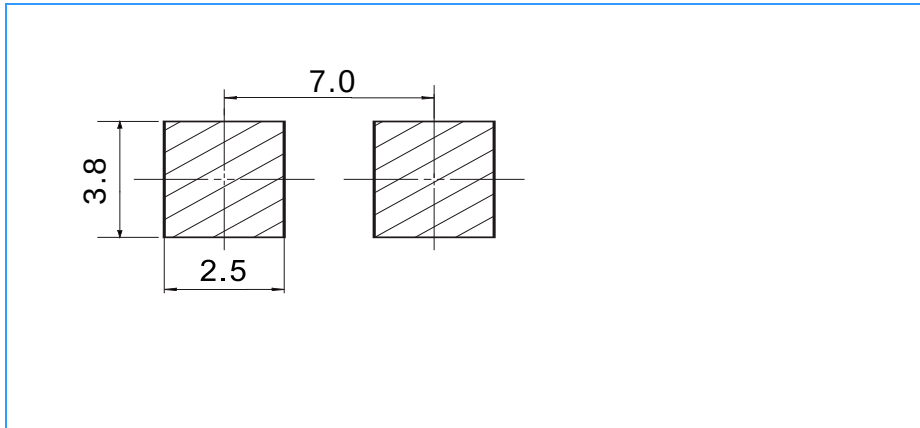
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Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
P120JCF	P120JCF	SMCF	3000 /Tape&Reel
P120KCF	P120KCF	SMCF	3000 /Tape&Reel