

Surface Mount Rectifier

P60JCF - P60KCF

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- RoHS compliant with Halogen-free



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)

Parameter	Symbol	P60JCF	P60KCF	Unit
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}	6.0		A
Peak forward surge current, 8.3ms single half-sine-wave	I _{FSM}	170		A
	@T _J = 25°C			

Thermal Characteristics

Parameter	Symbol	P60JCF	P60KCF	Unit
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 p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

Surface Mount Rectifier

P60JCF - P60KCF

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Typ.	Max.	Unit	
Instantaneous Forward Voltage	V_F	$I_F = 6.0\text{A}$	0.95	1.0	V	
Reverse Current	I_R	Rated	@ $T_A = 25^\circ\text{C}$	0.2	1.0	μA
		V_R	@ $T_A = 125^\circ\text{C}$	40	100	

Surface Mount Rectifier

P60JCF - P60KCF

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

Fig.1 Forward Current Derating Curve

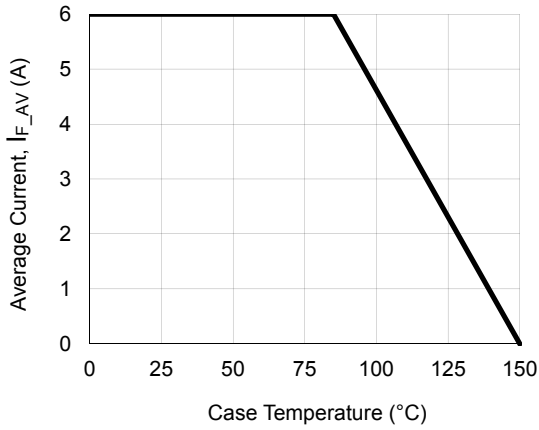


Fig.2 Surge Current Derating Curve

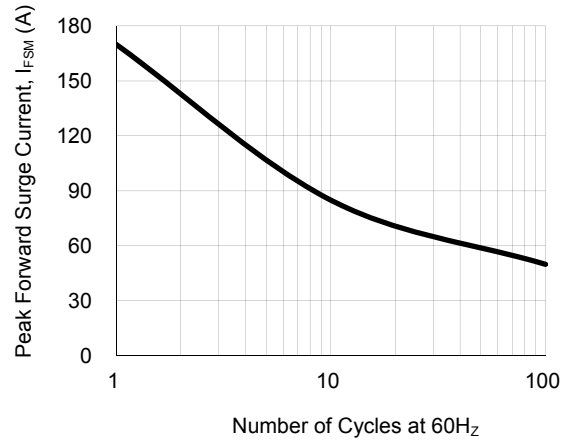


Fig.3 Typical Forward Voltage Characteristics

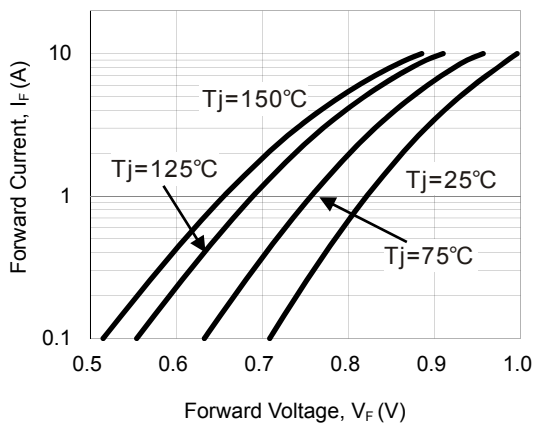
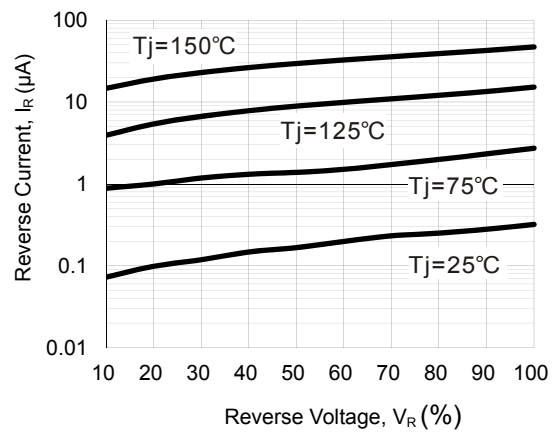


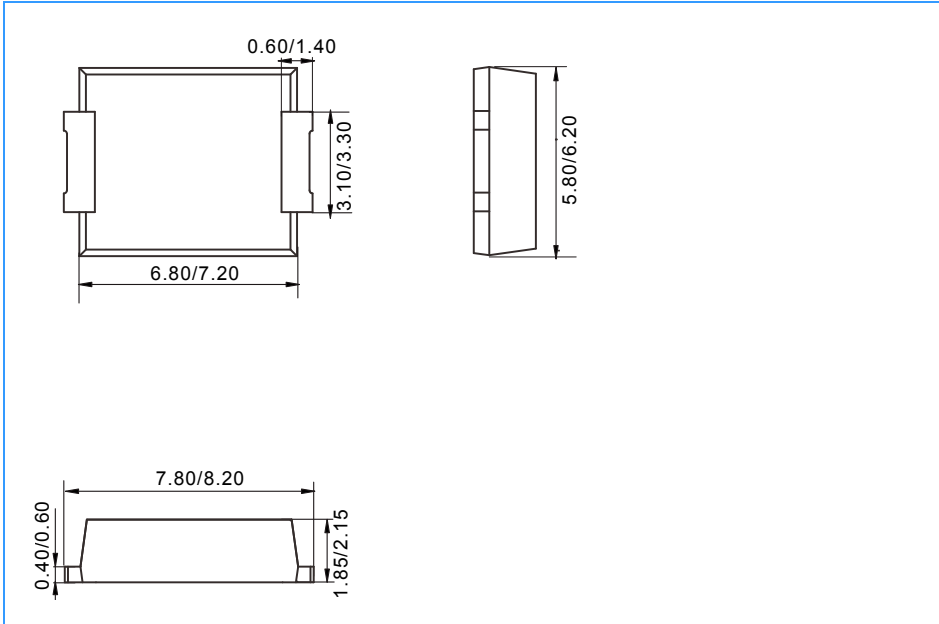
Fig.4 Typical Reverse Characteristics



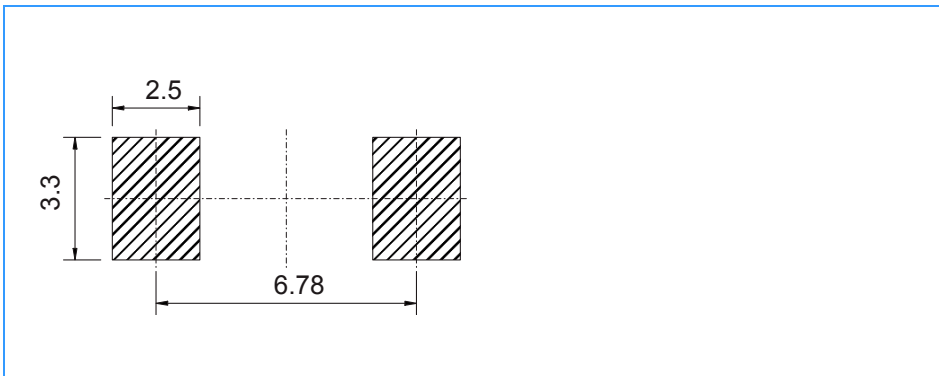
Surface Mount Rectifier

P60JCF - P60KCF

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Marking	Package	Shipping Quantity
P60JCF	P60JCF	SMCF	3000 / Tape & Reel
P60KCF	P60KCF	SMCF	3000 / Tape & Reel