

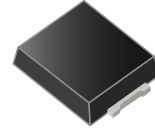
MURS440CF-HF Thru. MURS460CF-HF

Reverse Voltage: 400 to 600 Volts

Forward Current: 4 Amp

RoHS Device

Halogen Free



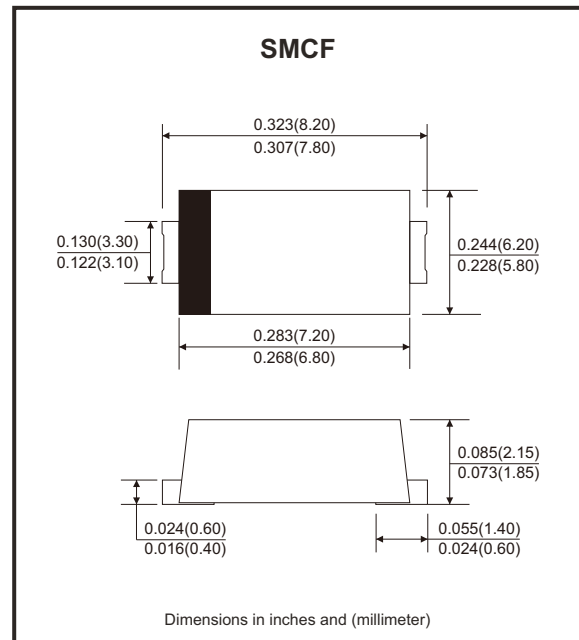
Features

- Low forward voltage drop.
- High forward surge current capability.
- Low-profile SMD ideal for automated manufacturing.

Mechanical data

- Case: SMCF, molded plastic.
- Epoxy: UL flammability classification rating 94V-0.
- Terminals: Solder plated, solderable per MIL-STD-202, method 208.
- Polarity: Color band denoted cathode end.

Circuit Diagram



Maximum Ratings (at $T_A=25^\circ\text{C}$, unless otherwise noted)

Parameter	Symbol	MURS440CF-HF	MURS460CF-HF	Unit
Peak repetitive reverse voltage	V_{RRM}	400	600	V
RMS reverse voltage	V_{RMS}	280	420	V
DC blocking voltage	V_{DC}	400	600	V
Maximum average forward output current	$I_{F(AV)}$	4		A
Peak forward surge current, 8.3ms single half sine-wave	I_{FSM}	125		A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	27		$^\circ\text{C/W}$
	$R_{\theta JC}$	10		
	$R_{\theta JL}$	4		
Operating junction temperature range	T_J	-55 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150		$^\circ\text{C}$

Notes: 1. Device mounted on P.C.B. with 10mm x 20mm x 0.1mm copper pad areas.

Electrical Characteristics (at $T_A=25^\circ\text{C}$, unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Instantaneous forward voltage	$I_F = 4\text{A}$	V_F			1.28	V
Reverse current	Rated V_R , @ $T_A = 25^\circ\text{C}$ @ $T_A = 125^\circ\text{C}$	I_R			10	μA
					200	
Reverse recovery time	$I_F = 0.5\text{A}$, $I_{RM} = 1\text{A}$, $I_{R(REC)} = 0.25\text{A}$	t_{rr}			50	ns

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

Rating and Characteristics Curves (MURS440CF-HF Thru. MURS460CF-HF)

Fig.1 - Forward Current Derating Curve

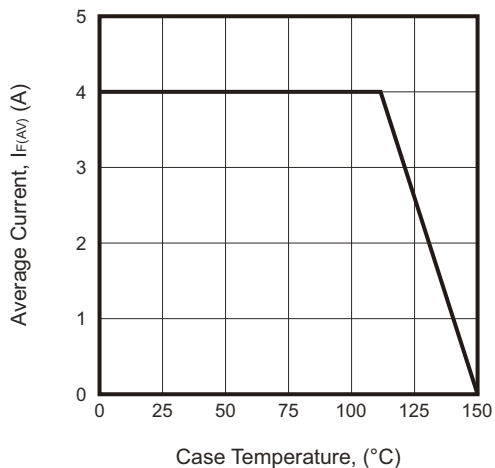


Fig.2 - Surge Current Derating Curve

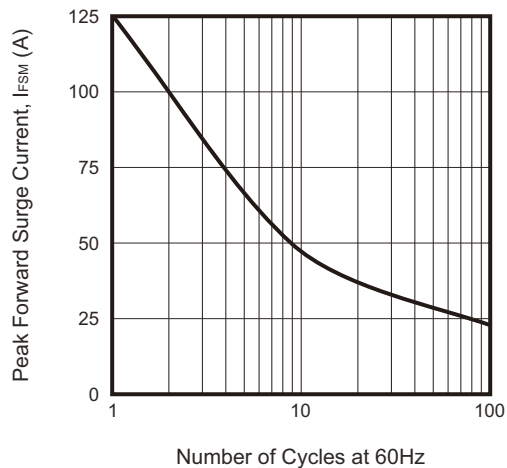


Fig.3 - Typical Forward Voltage Characteristics

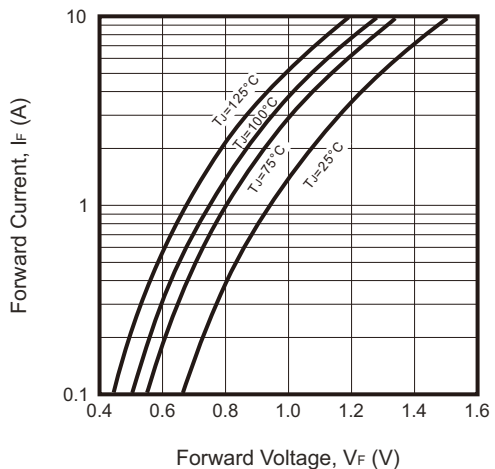
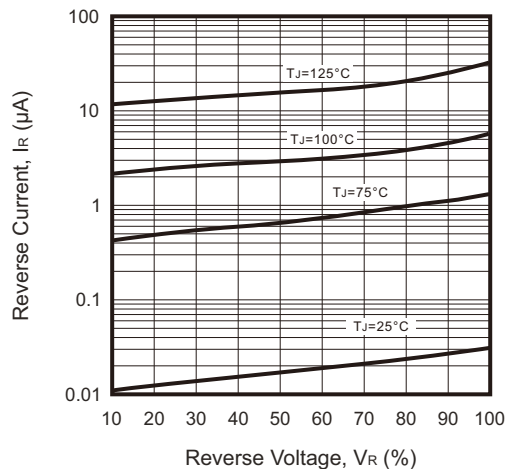
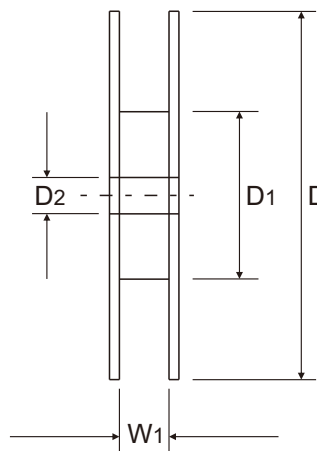
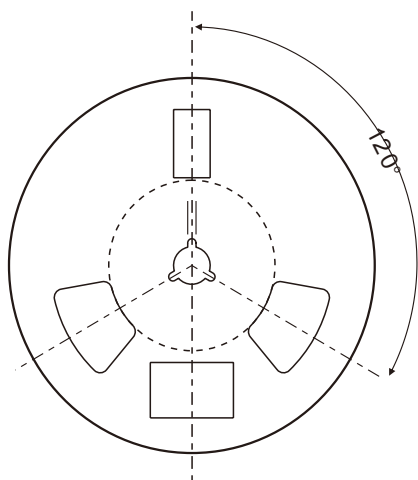
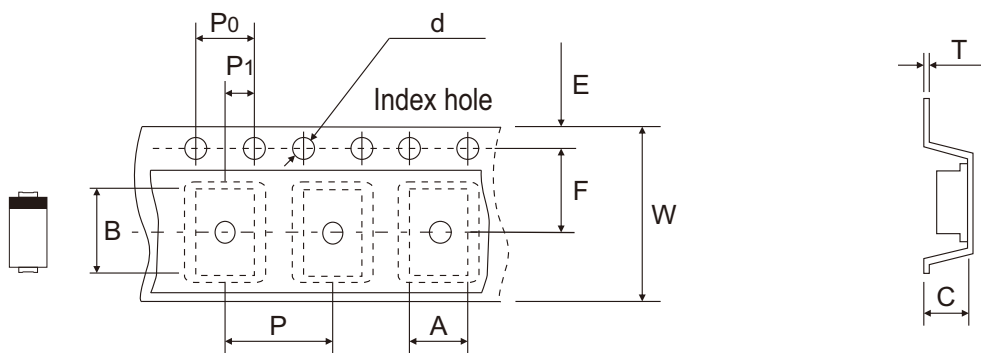


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification



SMCF	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.22 ± 0.10	8.31 ± 0.10	2.49 ± 0.10	1.55 ± 0.05	330 ± 1.00	75.00 ± 1.00	13.50 ± 0.50
	(inch)	0.245 ± 0.004	0.327 ± 0.004	0.098 ± 0.004	0.061 ± 0.002	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

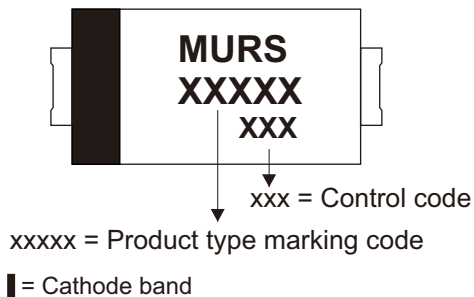
SMCF	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.28 ± 0.02	16.00 ± 0.30	17.00 ± 1.00
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.011 ± 0.001	0.630 ± 0.012	0.669 ± 0.039

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REV:A

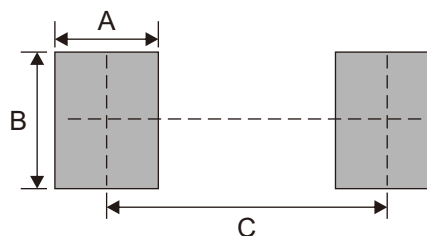
Marking Code

Part Number	Marking Code
MURS440CF-HF	MURS440CF
MURS460CF-HF	MURS460CF



Suggested P.C.B. PAD Layout

SIZE	SMCF	
	(mm)	(inch)
A	2.50	0.098
B	3.30	0.130
C	6.78	0.267



Note: 1. The pad layout is for reference purpose only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SMCF	3,000	13