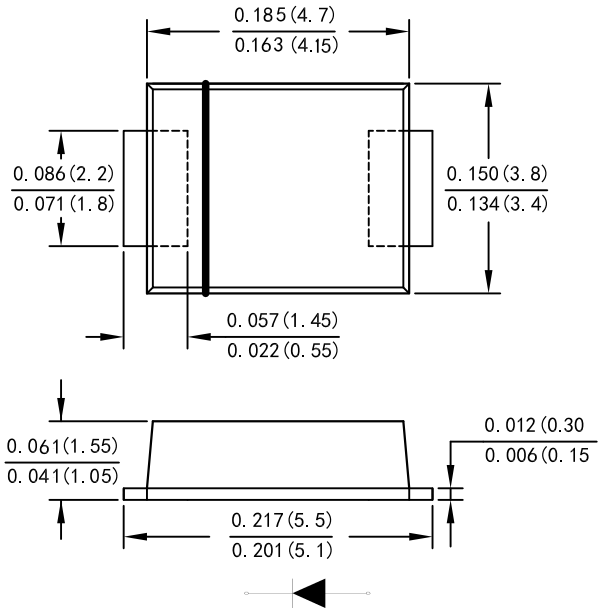
US4A~US4M

4.0Amp Ultra Fast Recovery Surface Mounted Rectifiers

SMBF



Dimensions in inches and (millimeters)

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260℃/10 seconds at terminals

Mechanical Data

Case : Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	US4A	US4B	US4D	US4G	US4J	US4K	US4M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T_L=100℃	$I_{(AV)}$	4.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0							A
Maximum instantaneous forward voltage at 4.0A	V_F	1.0			1.4	1.7			V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=125℃	I_R	5.0 200							u A
Maxinum reverse recovery time(Note 1)	Trr	50				75			ns
Typical junction capacitance (Note2)	C_J	65.0							pF
Typical thermal resistance	R_{qJA}	75.0							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							°C

Note: 1.Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

US4A~US4M

4.0Amp Ultra Fast Recovery Surface Mounted Rectifiers

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

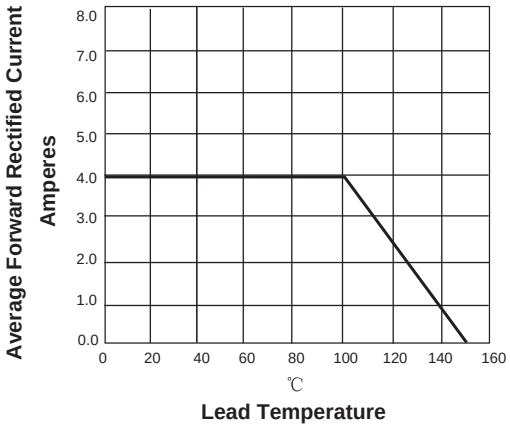


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

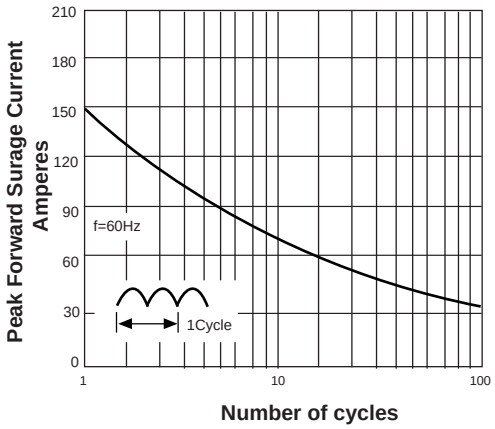


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

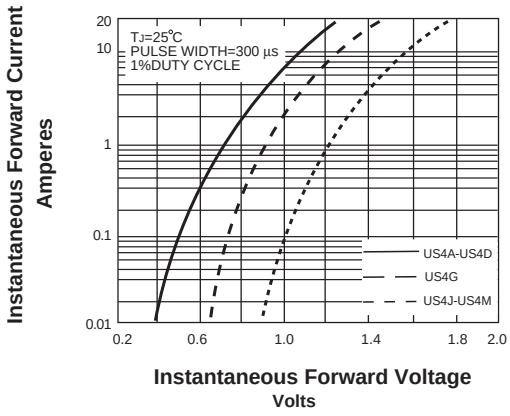


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

