

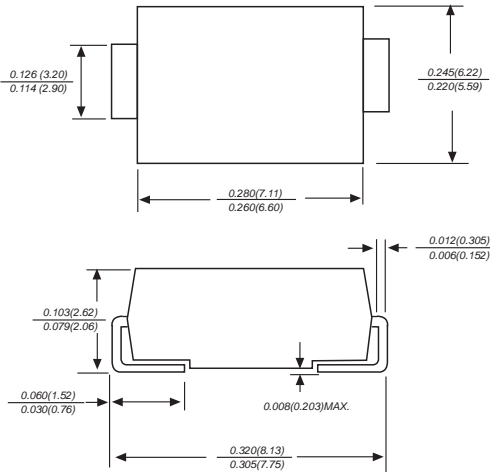


US3A THRU US3M

SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

DO-214AB/SMC



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Glass passivated chip junction

MECHANICAL DATA

Case : JEDEC DO-214AB molded plastic body over passivated chip
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.007 ounce, 0.25grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MDD Catalog Number	SYMBOLS	US3A	US3B	US3D	US3G	US3J	US3K	US3M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=55^\circ\text{C}$	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.0		1.4		1.7		Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$	I_R	5.0							μA
$T_A=100^\circ\text{C}$		100.0							
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				75			ns
Typical junction capacitance (NOTE 2)	C_J	75				50			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	25.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ\text{C}$

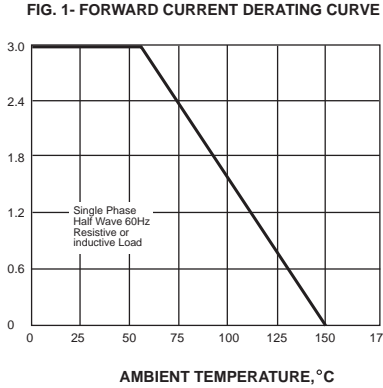
Note: 1. Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, t_{rr}=0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



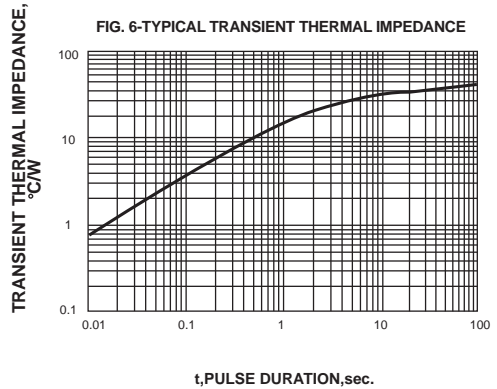
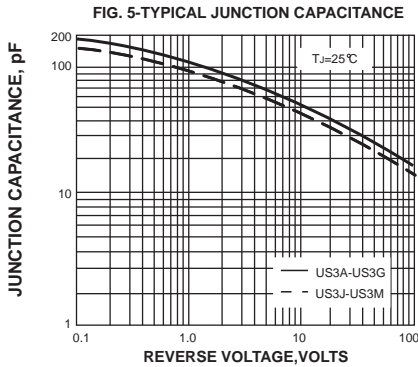
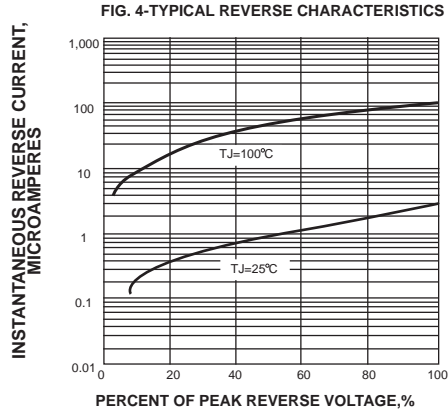
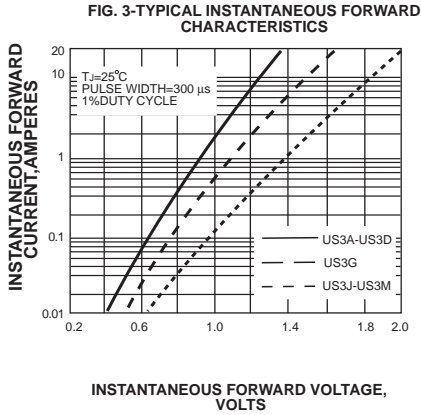
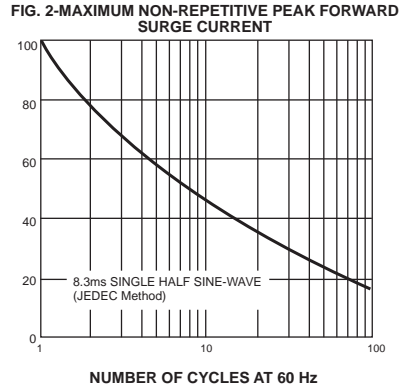
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RATINGS AND CHARACTERISTIC CURVES US3A THRU US3M

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



PEAK FORWARD SURGE CURRENT,
AMPERES



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

