

# Superfast Recover Rectifier

## 1.0A, 50~600V DO-214AA SMB

MURS1xxB Series

**MERITEK**

### FEATURE

- Glass Passivated Die Constructiton
- Superfast Recovery Times for high Efficiency
- Low Profile Package



### MECHANICAL DATA

- Case: DO-214AA SMB, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Flammabilit Classification 94V-0



### MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS

Parameter	Symbol	MURS 105B	MURS 110B	MURS 115B	MURS 120B	MURS 140B	MURS 160B	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current	$I_{AV}$	1.0						A
Peak Forward Surge Current, 8.3ms single half sine wave (JEDEC method)	$I_{FSM}$	30						A
Maximum Forward Voltage at 1.0A	$V_F$	0.875			1.10		1.25	V
Maximum Reverse Current at Rated $V_{DC}$	$T_J=25^{\circ}C$	5.0						uA
	$T_J=100^{\circ}C$	100						
Typical Thermal Resistance	$R_{\theta JA}$	75						$^{\circ}C/W$
Typical Junction Capacitance	$C_J$	15						pF
Maximum Reverse Recovery Time	$T_{RR}$	25			35		50	nS
Operating Junction Temperature	$T_J$	-55 ~ 150						$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 ~ 150						$^{\circ}C$

Note

1. Measured at 1MHZ and applied reverse voltage of 4.0V<sub>DC</sub>
2. Thermal resistance from junction to ambient and
3. Reverse Reciovery Test Condition: IF=0.5A, IR=1A, IRR=0.25A
4. TA=25°C unless otherwise noted, Single phase, half wave 60Hz, Resistive or inductive load. For Capacitve load, derate current by 20%

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## CHARACTERISTIC CURVES

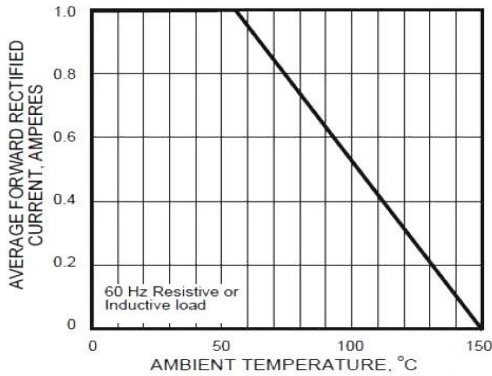


FIG. 1 - FORWARD CURRENT DERATING CURVE

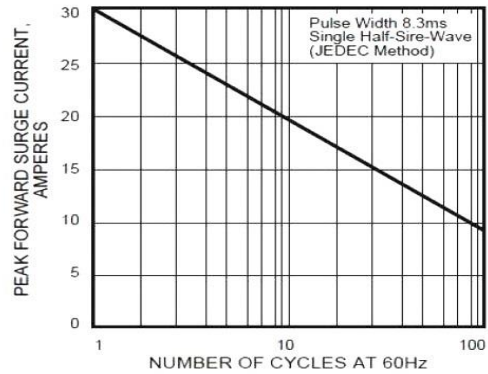


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

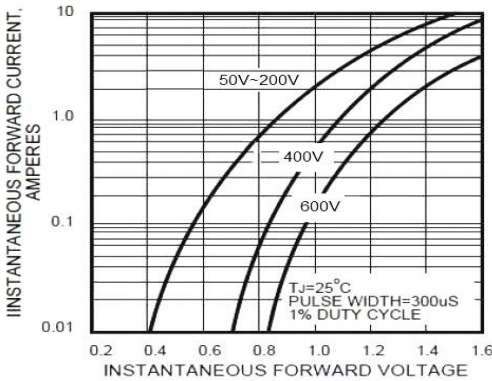


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

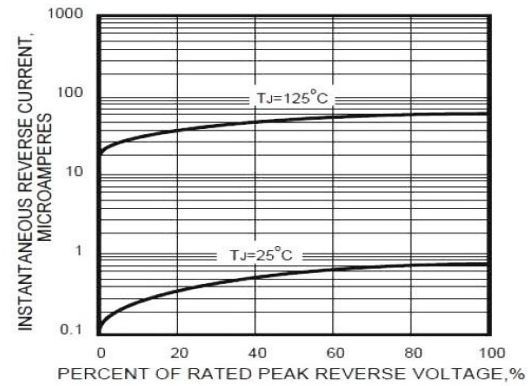


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

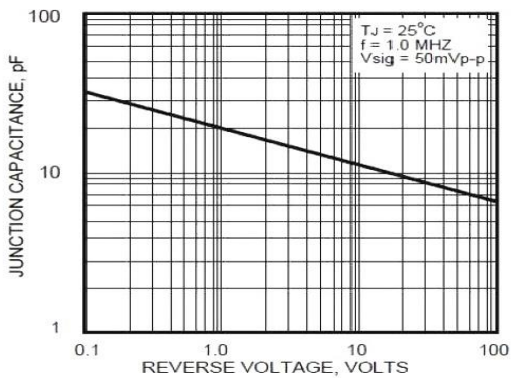


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

\*Specifications subject to change without notice.