

## VI. Bridge Rectifier

### 0.8A SMD Glass Passivated Bridge Rectifier (Low Profile Type)

**MT05S~MT10S**

**(Package: MTS)**

<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Glass passivated die construction</li> <li>• Reliable low cost construction utilizing molded plastic technique</li> <li>• High surge current capability</li> <li>• Small size, simple installation</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case : Molded plastic</li> <li>• Polarity : Polarity symbols marked on body</li> <li>• Mounting position : Any</li> <li>• Handling precaution : None</li> </ul>	<p>Case: MTS Dimensions in inches and (millimeters)</p>
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## Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	MT 05S	MT 1S	MT 2S	MT 4S	MT 6S	MT 8S	MT 10S	Units
Maximum recurrent 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 $T_a = 40^\circ\text{C}$ (Note 1)	$I_o$	0.8							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method)	$I_{FSM}$	30.0							Amps
Maximum instantaneous forward voltage drop per element at 0.8A DC	$V_F$	1.1							Volts
Maximum DC reverse current $T_j=25^\circ\text{C}$ at rated DC blocking voltage $T_j=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Typical junction capacitance per element (Note 2)	$C_j$	15							PF
Typical thermal resistance (Note 3)	$R_{th-JC}$	75							/ W
Operating junction and storage temperature range	$T_j, T_{stg}$	-55 to +150							

Notes:

1. Mounted on P. C. Board.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts D.C.

3. Thermal resistance junction to case.

# Ratings and Characteristic Curves of MT05S~MT10S

FIG.1-FORWARD CURRENT DERATING CURVE

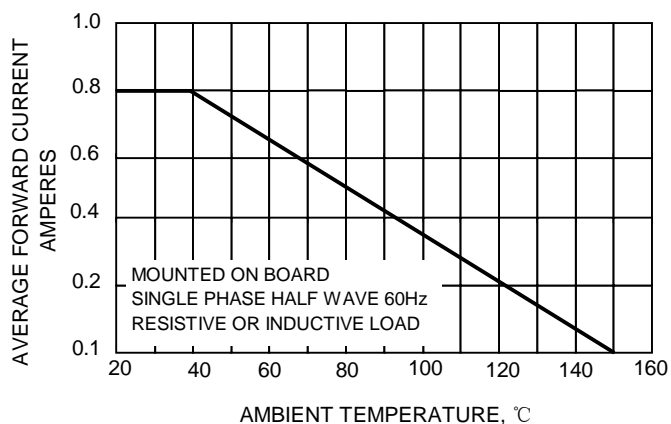


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

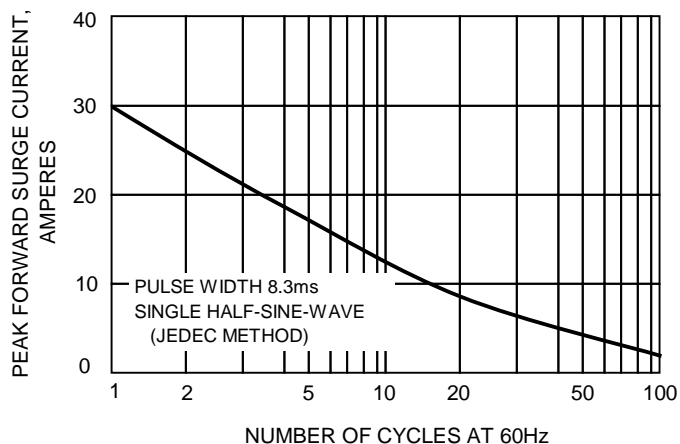


FIG.3-TYPICAL REVERSE CHARACTERISTICS

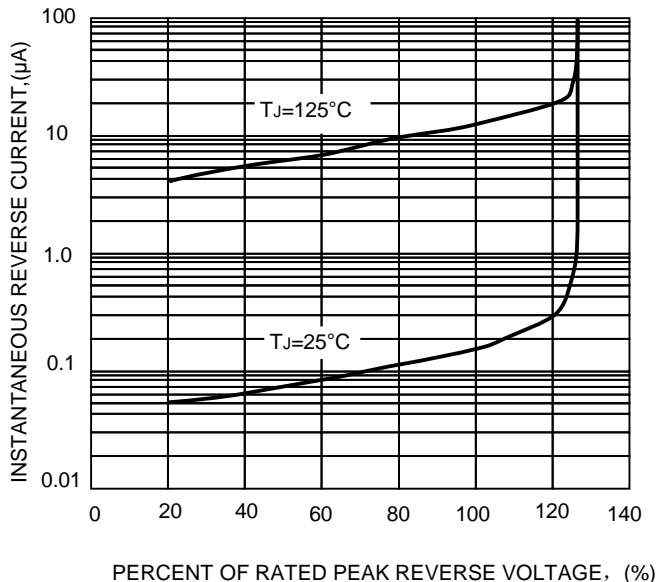


FIG.4-TYPICAL FORWARD CHARACTERISTICS

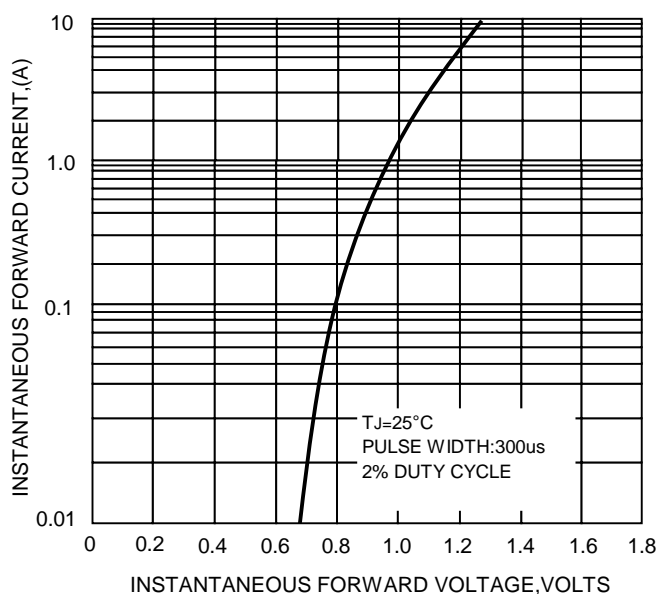


FIG.5-TYPICAL JUNCTION CAPACITANCE

