

STTH1R06U

PRV : 600 Volts
Io : 1.0 Ampere

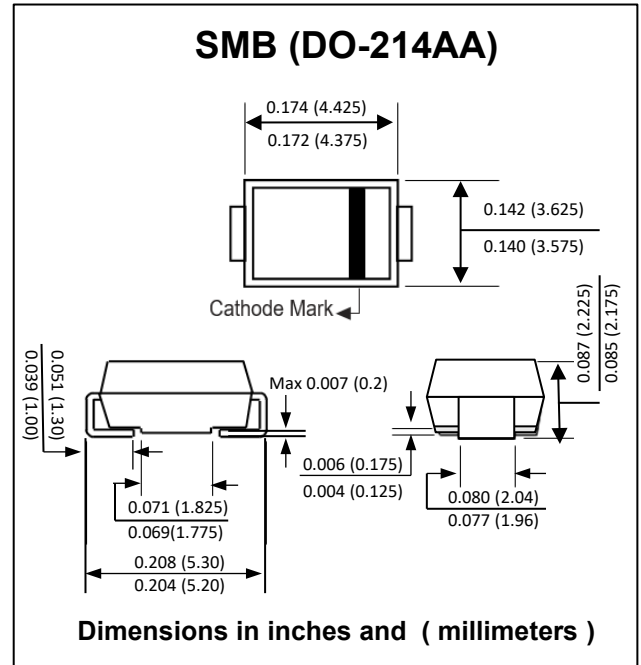
FEATURES :

- * Glass passivated junction chip
- * Hyperfast switching
- * Low reverse recovery current
- * Low thermal resistance
- * Reduces switching & conduction losses
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMB Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.108 gram

SURFACE MOUNT HYPERFAST RECOVERY RECTIFIER



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
RMS forward voltage	$I_{F(RMS)}$	7.0	A
Maximum average forward current, $T_c = 135\text{ °C}$ $\delta = 0.5$	$I_{F(AV)}$	1.0	A
Non-repetitive forward surge current, $t_p=10\text{ms}$ sinusoidal	I_{FSM}	20	A
Maximum forward voltage drop at $I_F = 1\text{ A}$, $T_J = 25\text{ °C}$ $T_J = 150\text{ °C}$	V_F	1.7 1.25	V
Maximum DC reverse current $T_J = 25\text{ °C}$	I_R	1.0	μA
at rated DC blocking voltage $T_J = 150\text{ °C}$	$I_{R(H)}$	75	μA
Maximum reverse recovery time, $T_J = 25\text{ °C}$ (Note 1)	T_{rr}	25	ns
Thermal resistance (Junction to lead), $L = 10\text{mm}$	$R_{\theta JL}$	25	$^{\circ}\text{C/W}$
Maximum operating junction temperature range	T_J	175	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	- 65 to + 175	$^{\circ}\text{C}$

Notes :

(1) Reverse Recovery Test Conditions $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.

RATING AND CHARACTERISTIC CURVES (STTH1R06U)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

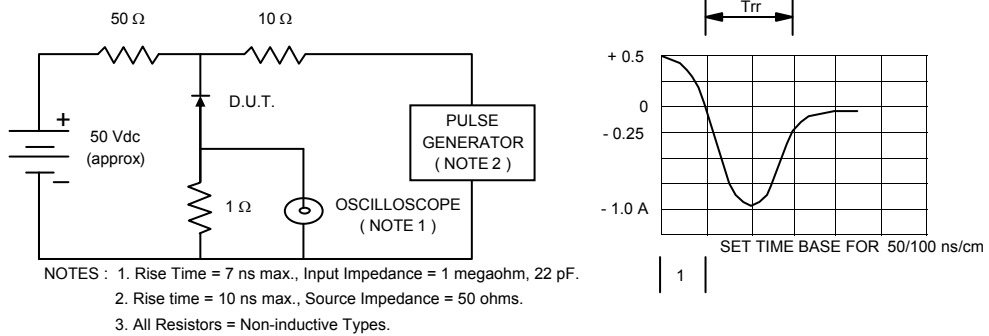


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

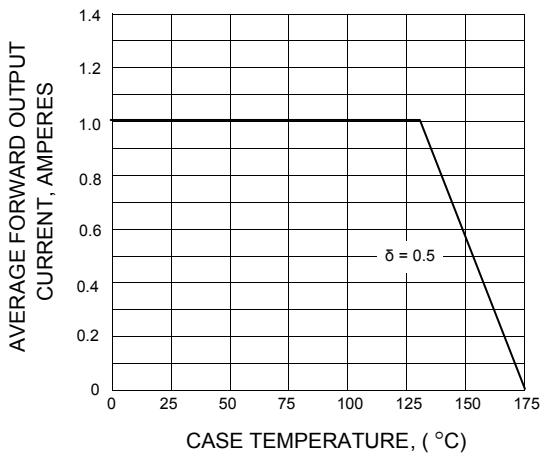


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

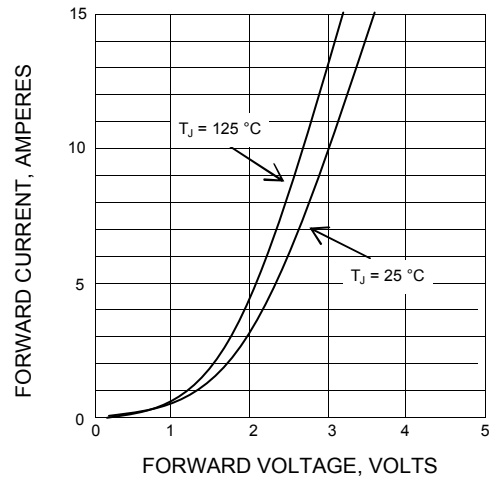


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

