

Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYPE.	MAX.	Unit	
Input	Forward voltage	V_F	$I_F = 20\text{mA}$	-	1.2	1.4	V	
	Reverse current	I_R	$V_R = 3\text{V}$	-	-	1×10^{-4}	A	
Output	Repetitive peak OFF-state current	I_{DRM}	$V_D = V_{DRM}$	-	-	1×10^{-4}	A	
	ON-state voltage	V_T	$I_T = 2A_{rms}$ Load resistance, $I_F = 20\text{mA}$	-	-	1.7	V_{rms}	
	Holding current	I_H	-	-	-	25	mA	
	Critical rate of rise of OFF-state voltage	dV/dt	$V_D = 2/3V_{DRM}$	30	-	-	$V/\mu s$	
	Critical rate of rise of OFF-state voltage at commutation	$(dV/dt)_C$	$T_j = 125^\circ\text{C}$, $V_D = 400\text{V}$ $dI_i/dt_i = 1.0\text{A/ms}$	4	-	-	$V/\mu s$	
	Minimum trigger current	I_{FT}	*4	-	-	8	mA	
Transfer characteristics	Zero cross voltage	S102T02/S202T02 V_{OX}	$I_F = 8\text{mA}$	-	-	35	V	
	Insulation resistance	R_{ISO}	DC500V, 40 to 60% RH	1×10^{10}	-	-	Ω	
	Turn-on time	S102T01/S202T01	t_{on}	AC50Hz	-	-	1	ms
		S102T02/S202T02			-	-	10	
	Turn-off time	t_{off}	AC50Hz	-	-	10	ms	

*4 S102T01/S202T01 $V_D=12\text{V}, R_L=30\ \Omega$ S102T02/S202T02 $V_D=6\text{V}, R_L=30\ \Omega$

Fig. 1 Effective On-state current vs. Ambient Temperature

