



**SFT700D-28Q**



**SOLID STATE DEVICES, INC**

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**ELECTRICAL CHARACTERISTICS (Per Transistor) @  $T_J=25^\circ\text{C}$  (Unless Otherwise Specified)**

RATING	SYMBOL	DUAL NPN		DUAL PNP		UNIT
		MIN	MAX	MIN	MAX	
Collector-Emitter Breakdown Voltage ( $I_C = 10.0\text{mA}$ , $I_B = 0\text{A}$ )	<b><math>V_{CE0}</math></b>	50	---	60	---	V
Collector-Base Breakdown Voltage ( $I_C = 10.0\mu\text{A}$ , $I_E = 0\text{A}$ )	<b><math>V_{CB0}</math></b>	75	---	60	---	V
Emitter-Base Breakdown Voltage ( $I_E = 10\mu\text{A}$ , $I_C = 0\text{A}$ )	<b><math>V_{EB0}</math></b>	6	---	5	---	V
Collector Cutoff Current ( $V_{CE} = 60\text{Vdc}$ ) ( $V_{CE} = 50\text{Vdc}$ ) ( $V_{CE} = 60\text{Vdc}$ , $150^\circ\text{C}$ ) ( $V_{CE} = 50\text{Vdc}$ , $150^\circ\text{C}$ )	<b><math>I_{CBO}</math></b>	---	10	---	---	nA $\mu\text{A}$
Collector Cutoff Current ( $V_{CE} = 50\text{V}$ ) ( $V_{CE} = 30\text{V}$ )	<b><math>I_{CES}</math></b>	---	50	---	---	nA
Emitter Cutoff Current ( $V_{EB} = 4\text{Vdc}$ for NPN, $V_{EB} = 3.5\text{Vdc}$ for PNP)	<b><math>I_{EBO}</math></b>	---	10	---	50	nA
DC Current Gain ( $I_C = 100\mu\text{A}$ , $V_{CE} = 10\text{Vdc}$ ) ( $I_C = 1.0\text{mA}$ , $V_{CE} = 10\text{Vdc}$ ) ( $I_C = 10\text{mA}$ , $V_{CE} = 10\text{Vdc}$ ) ( $I_C = 150\text{mA}$ , $V_{CE} = 10\text{Vdc}$ ) ( $I_C = 500\text{mA}$ , $V_{CE} = 10\text{Vdc}$ ) ( $I_C = 10\text{mA}$ , $V_{CE} = 10\text{Vdc}$ , $-55^\circ\text{C}$ ) ( $I_C = 1.0\text{mA}$ , $V_{CE} = 10\text{Vdc}$ , $-55^\circ\text{C}$ )	<b>HFE</b>	50 75 100 100 30 35 ---	---	75 100 100 100 50 ---	---	450 ---
Small Signal Current Gain ( $V_{CE} = 10\text{Vdc}$ , $I_C = 1\text{mA}$ , $f = 1\text{kHz}$ )	<b>hfe</b>	50	---	100	---	
Collector -Emitter Saturation Voltage ( $I_C = 150\text{mA}$ , $I_B = 15\text{mA}$ ) ( $I_C = 500\text{mA}$ , $I_B = 50\text{mA}$ )	<b><math>V_{CE(SAT)}</math></b>	---	0.3 1.0	---	0.4 1.6	V
Base-Emitter Saturation Voltage ( $I_C = 150\text{mA}$ , $I_B = 15\text{mA}$ ) ( $I_C = 500\text{mA}$ , $I_B = 50\text{mA}$ )	<b><math>V_{BE(SAT)}</math></b>	0.6 ---	1.2 2.0	---	1.3 2.6	V
Magnitude of Small Signal Short Circuit Current Gain ( $I_C = 20\text{mA}$ , $V_{CE} = 20\text{Vdc}$ , $f = 100\text{MHz}$ ) ( $I_C = 50\text{mA}$ , $V_{CE} = 20\text{Vdc}$ , $f = 100\text{MHz}$ )	<b><math> h_{fe} </math></b>	2.5 ---	---	2	---	
Output Capacitance ( $V_{CB} = 10\text{Vdc}$ , $I_E = 0\text{A}$ , $f = 1\text{MHz}$ )	<b><math>C_{ob}</math></b>	---	8	---	8	pF
Input Capacitance ( $V_{BE} = 0.5\text{Vdc}$ , $I_E = 0\text{A}$ , $f = 1\text{MHz}$ ) ( $V_{BE} = 2.0\text{Vdc}$ , $I_E = 0\text{A}$ , $f = 1\text{MHz}$ )	<b><math>C_{ib}</math></b>	---	25 ---	---	---	pF
Turn On Time Turn Off Time	<b><math>t_{on}</math> <math>t_f</math></b>	---	35 300	---	45 300	nsec

For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.