



PRELIMINARY

SOLID STATE DEVICES, INC

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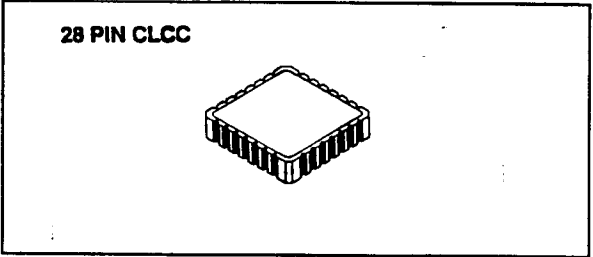
SFT700D-28Q

Dual 800mA, 75 V-NPN
and
Dual 600mA, 60 V-PNP
Transistor*

Designer's Data Sheet

FEATURES:

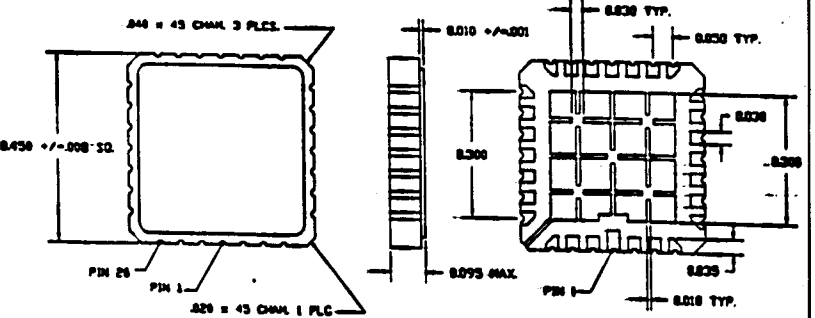
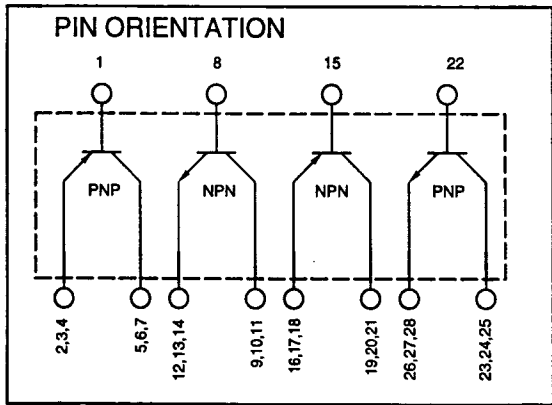
- Eutectic Die Attach, Hermetic Package
- Electrical performance similar to 2N2222A and 2N2907A.
- Hermetically Sealed Surface Mount Package
- Fast Complimentary Switching
- TX, TXV and Space Level Screening Available



MAXIMUM RATINGS (Per Transistor)

CHARACTERISTIC	SYMBOL	NPN VALUE	PNP VALUE	UNIT
Collector-Emitter Voltage	V _{CEO}	40	60	V
Collector-Base Voltage	V _{CBO}	75	60	V
Emitter-Base Voltage	V _{EBO}	6.0	5.0	V
Collector Current	I _c	800	600	mA
NPN to PNP Isolation Voltage	I _v	500		V
Total Device Dissipation @ TC= 25 °C (All four transistors)	P _D	4.8		W
Operating and Storage Temperature	T _j , T _{stj}	-55 to +200		°C
Thermal Resistance, Junction to Case (All four transistors)	R _{θJC}	20		°C/W

PACKAGE OUTLINE: 28 PIN QUAD CLCC



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET: XN0035 A

MED

SFT700D-28Q



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ELECTRICAL CHARACTERISTICS (Per Transistor) @ T_J=25° C (Unless Otherwise Specified)

RATING	SYMBOL	DUAL NPN		DUAL PNP		UNIT
		MIN	MAX	MIN	MAX	
Collector-Emitter Breakdown Voltage (I _C = 10.0mA, I _B =0 A)	BV_{CEO}	50	---	60	---	V
Collector- Base Breakdown Voltage (I _C = 10.0mA, I _E =0 A)	BV_{CBO}	75	---	60	---	V
Emitter-Base Breakdown Voltage (I _E = 10mA, I _C =0 A)	BV_{EBO}	6	---	5	---	V
Collector Cutoff Current (V _{CE} = 60 Vdc) (V _{CE} = 50 Vdc) (V _{CE} = 60 Vdc, 150° C) (V _{CE} = 50 Vdc, 150° C)	I_{CBO}	---	10	---	---	nA μA
Collector Cutoff Current (V _{CE} =50 V) (V _{CE} =30 V)	I_{CES}	---	50	---	---	nA
Emitter Cutoff Current (V _{EB} = 4 Vdc for NPN, V _{EB} =3.5Vdc for PNP)	I_{EBO}	---	10	---	50	nA
DC Current Gain (I _C = 100 μA, V _{CE} = 10 Vdc) (I _C = 1.0 mA, V _{CE} = 10 Vdc) (I _C = 10 mA, V _{CE} = 10 Vdc) (I _C = 150 mA, V _{CE} = 10 Vdc) (I _C = 500 mA, V _{CE} = 10 Vdc) (I _C = 10 mA, V _{CE} = 10 Vdc, -55° C) (I _C = 1.0 mA, V _{CE} = 10 Vdc, -55° C)	HFE	50 75 100 100 30 35 ---	--- 325 --- 300 --- --- ---	75 100 100 100 50 --- 50	--- 450 --- 300 --- --- ---	
Small Signal Current Gain (V _{CE} = 10Vdc, I _C = 1mA, f=1kHz)	hfe	50	---	100	---	
Collector -Emitter Saturation Voltage (I _C = 150 mA, I _B = 15 mA) (I _C = 500 mA, I _B = 50 mA)	V_{CE(SAT)}	---	0.3 1.0	---	0.4 1.6	V
Base-Emitter Saturation Voltage (I _C = 150 mA, I _B = 15 mA) (I _C = 500 mA, I _B = 50 mA)	V_{BE(SAT)}	0.6 ---	1.2 2.0	---	1.3 2.6	V
Magnitude of Small Signal Short Circuit Current Gain (I _C =20mA, V _{CE} =20Vdc, f=100MHz) (I _C =50mA, V _{CE} =20 Vdc, f=100 MHz)	I_{hfe1}	2.5 ---	---	2	---	
Output Capacitance (V _{CB} = 10 Vdc, I _E = 0 A, f=1MHz)	C_{ob}	---	8	---	8	pF
Input Capacitance	(V _{BE} = 0.5 Vdc, I _E = 0 A, f=1MHz) (V _{BE} = 2.0 Vdc, I _E = 0 A, f=1MHz)	---	25 ---	---	---	pF
Turn On Time	V _{CC} = 30 Vdc I _C = 150 mA I _{B1} =I _{B2} = 15 mA	---	35	---	45	nsec
Turn Off Time		---	300	---	300	nsec

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