



Solid State Devices, Inc.

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SFT6032

SFT6033

Electrical Characteristics				Symbol	Min	Max	Unit s	
Collector – Emitter Blocking Voltage * (I _C = 200 mA, R _{BE} = 50 Ω)				BV _{CEO}	90	—	Volts	
					120	—		
				BV _{CER}	110	—		
					140	—		
Collector – Emitter Blocking Voltage *(I _C = 200 mA, V _{BE} = -1.5 V)				BV _{CEX}	120 150	— —	Volts	
Collector Cutoff Current (V _{CE} = 80 V)				I _{CEO}	—	1	mA	
Collector Cutoff Current (V _{CB} = 120 V) SFT6032 (V _{CB} = 150 V) SFT6033				I _{CBO}	—	1	mA	
					—	1		
Emitter Cutoff Current (V _{EB} = 7 V)				I _{EBO}	—	1	mA	
Collector Cutoff Current	T _A = 25°C (V _{CE} = 110 V, V _{BE} = 1.5 V) SFT6032			I _{CEX}	—	1	mA	
	T _A = 25°C (V _{CE} = 135 V, V _{BE} = 1.5 V) SFT6033				—	1		
	T _A = 150°C (V _{CE} = 100 V, V _{BE} = 1.5 V) SFT6032				—	15		
	T _A = 150°C (V _{CE} = 100 V, V _{BE} = 1.5 V) SFT6033				—	10		
DC Current Gain * I _C = 50 A, V _{CE} = 2.6 V, SFT6032 I _C = 40 A, V _{CE} = 2 V, SFT6033 I _C = 50 A, V _{CE} = 2.6 V, T _A =-55°C SFT6032 I _C = 40 A, V _{CE} = 2 V, T _A = -55°C, SFT6033				h _{FE}	10	50		
					10	50		
					5	—		
					5	—		
Small Signal Common-Emitter Forward Current Transfer Ratio (I _C = 2 A, V _{CE} = 10 V, f = 5 MHz)				h _{fe}	10	40		
Collector-Emitter Saturation Voltage *		(I _C = 50 A, I _B = 5 A) SFT6032		V _{CE (SAT)}	—	1.3	Volts	
		(I _C = 40 A, I _B = 4 A) SFT6033			—	1.0		
Base-Emitter Saturation Voltage * (I _C = 50 A, I _B = 5 A) SFT6032 (I _C = 40 A, I _B = 4 A) SFT6033				V _{BE (SAT)}	—	2.5 2.5	Volts	
Output Capacitance V _{CB} = 10 V, I _E = 0 A, f = 1.0MHz				C _{ob}	—	1000	pF	
Safe Operating Area V _{CE} = 2.8 V, I _C = 50 A, t= 1 s, SFT6032 V _{CE} = 3.5 V, I _C = 40 A, t= 1 s, SFT6033 V _{CE} = 24 V, I _C = 5.8 A, t= 1 s V _{CE} = 40 V, I _C = 0.9 A, t= 1 s V _{CE} = 90 V, I _C = 0.18 A, t= 1 s, SFT6032 V _{CE} = 120 V, I _C = 0.10 A, t= 1 s, SFT6033				SOA1a SOA1b SOA2 SOA3 SOA4a SOA4b				
Turn-on Time	(V _{CC} = 30 V, I _C = 50.0 A, I _{B1} = I _{B2} = 5.0 A) SFT6032			t _(on)		—	500	ns
Turn-off Time	(V _{CC} = 30 V, I _C = 40.0 A, I _{B1} = I _{B2} = 4.0 A) SFT6033			t _(off)		—	2.0	μs

NOTES: * Pulse Test: Pulse Width = 300μsec, Duty Cycle = 2%

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening per MIL-PRF-19500

3/ For Package Outlines Contact Factory.

4/ Up and Down Bend Configurations are Available for 'M' (TO-254) Packages Only.

5/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

Available Part Numbers:

SFT6032/3

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PIN ASSIGNMENT (Standard)

Package	Collector	Emitter	Base
TO-3 (/3)	Case	Pin 2	Pin 3

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

DATA SHEET #: TR0092A

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