

Multi-Chip TRANSISTOR (NPN)

FEATURES

Power dissipation

 P_{CM} : 300 mW ($T_{amb}=25^{\circ}C$)

Collector current

 I_{CM} : 200 mA

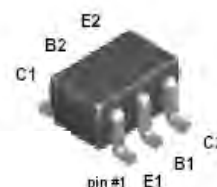
Collector-base voltage

 $V_{(BR)CBO}$: 50 V

Operating and storage junction temperature range

 T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

SOT-363



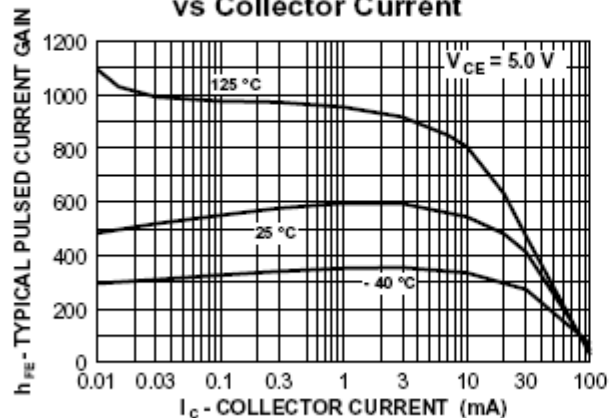
MARKING: 1C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

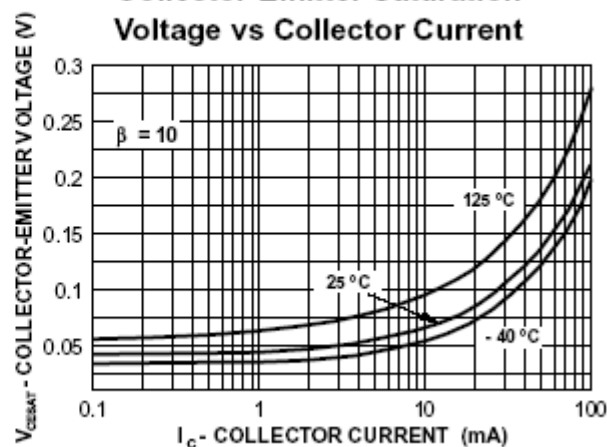
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			15	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=2mA$	110		630	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C=10mA, I_B=0.5mA$			0.25	V
	$V_{CE(sat)(2)}$	$I_C=100mA, I_B=5mA$			0.65	V
Base-emitter voltage	$V_{BE(1)}$	$V_{CE}=5V, I_C=2mA$	0.58		0.7	V
	$V_{BE(2)}$	$V_{CE}=5V, I_C=10mA$			0.77	V
Transition frequency	f_T	$V_{CE}=5V, I_C=20mA, f=100MHz$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		2		pF

Typical Characteristics

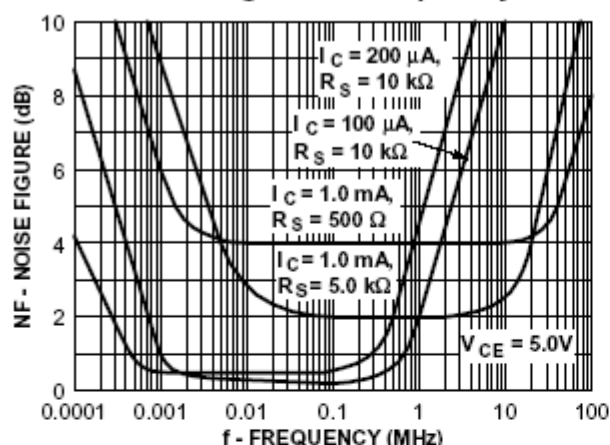
Typical Pulsed Current Gain
vs Collector Current



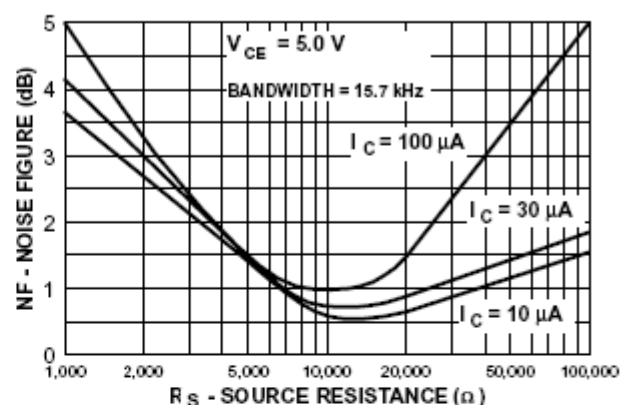
Collector-Emitter Saturation
Voltage vs Collector Current



Noise Figure vs Frequency



Wideband Noise Frequency
vs Source Resistance



Power Dissipation vs
Ambient Temperature

