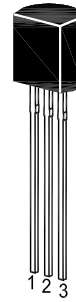


# 2SC1627

## NPN Silicon Epitaxial Planar Transistor

for driver stage amplifier applications, Voltage amplifier applications.

Driver stage application of 20 to 50 W amplifiers



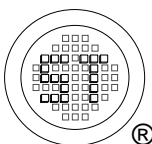
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	80	V
Collector Emitter Voltage	$V_{CEO}$	80	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	300	mA
Base Current	$I_B$	60	mA
Collector Power Dissipation	$P_C$	600	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 125	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 2\text{ V}$ , $I_C = 50\text{ mA}$ Current Gain Group at $V_{CE} = 2\text{ V}$ , $I_C = 200\text{ mA}$	O	$h_{FE}$	70	-	140	-
	Y	$h_{FE}$	120	-	240	-
		$h_{FE}$	40	-	-	-
Collector Base Cutoff Current at $V_{CB} = 50\text{ V}$	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Emitter Breakdown Voltage at $I_C = 5\text{ mA}$	$V_{(BR)CEO}$	80	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 200\text{ mA}$ , $I_B = 10\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V	
Base Emitter Voltage at $V_{CE} = 2\text{ V}$ , $I_C = 5\text{ mA}$ ,	$V_{BE}$	0.55	-	0.8	V	
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$ , $I_C = 10\text{ mA}$	$f_T$	-	100	-	MHz	
Output Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	10	-	pF	



**SEMTECH ELECTRONICS LTD.**



ISO 9001 : 2008  
Certificate No. 50719410



ISO 14001 : 2004  
Certificate No. 7116



ISO 9001 : 2008  
Certificate No. 50719410

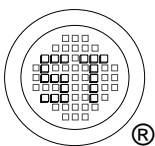
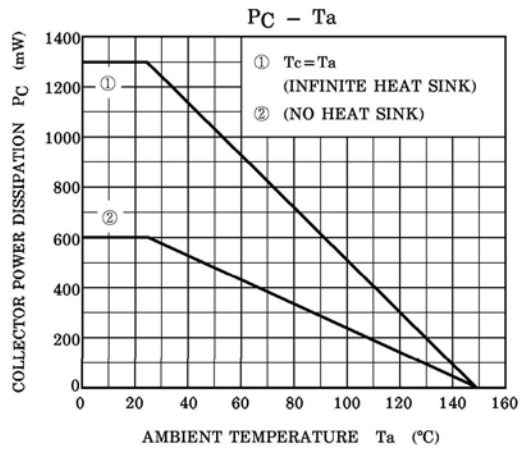
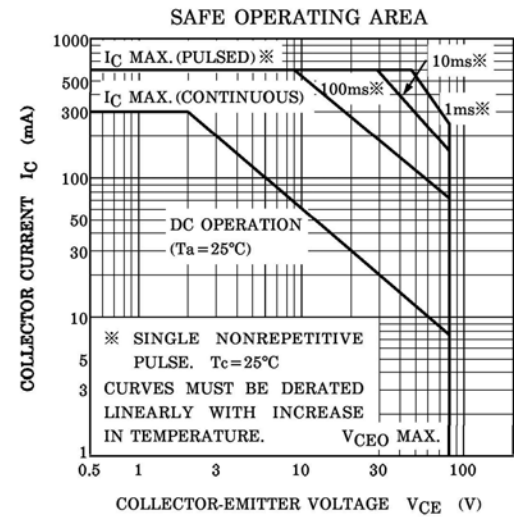
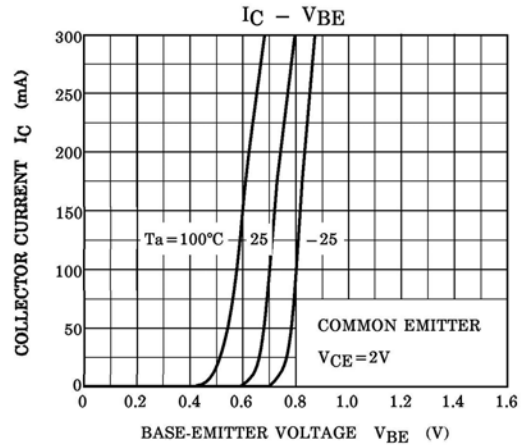
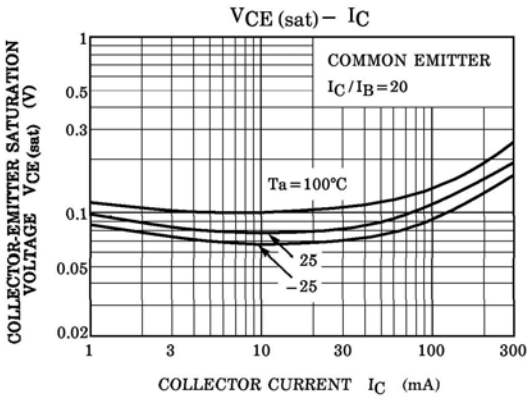
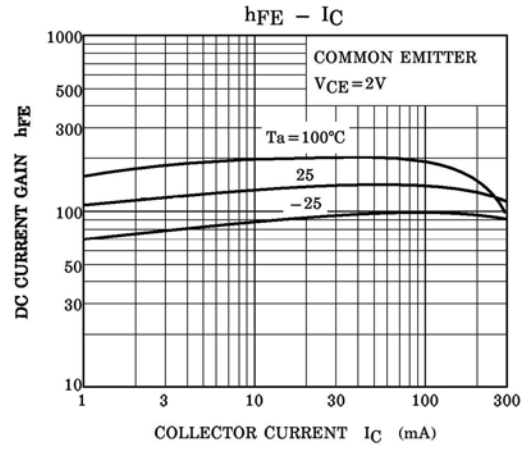
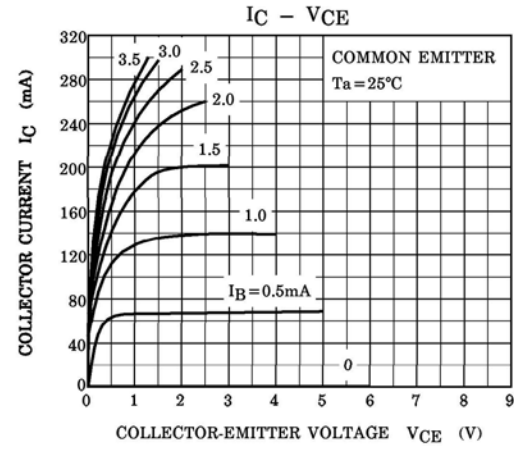


BS-ONSAS 18001 : 2007  
Certificate No. 7116



IECQ QC 080000  
Certificate No. PRC-1874-1484





**SEMTECH ELECTRONICS LTD.**

