

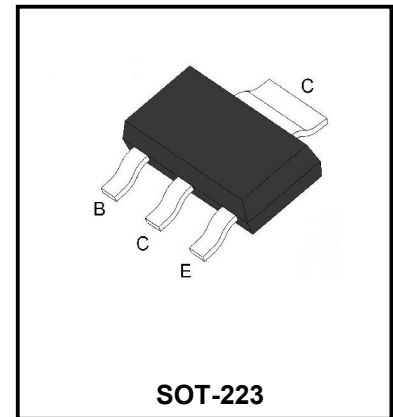
**PNP Plastic-Encapsulate Transistors**

**Applications**

- Medium Power Switching
- Power Amplification

**Features**

- High current output up to -6A
- Low saturation voltage
- Complement to DSS60601MZ4



**Product Specification Classification**

Part Number	Package	Marking	Pack
DSS60600MZ4	SOT-223	ZPS66	4000PCS/Tape

**Absolute Maximum Rating (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$BV_{CBO}$	-100	V
Collector-Emitter Voltage	$BV_{CEO}$	-60	V
Emitter-Base Voltage	$BV_{EBO}$	-6	V
Collector Current	$I_C$	-6	A
Pulse Collector Current	$I_{CM}$	-12	A
Power Dissipation	$P_D$	1.2	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~150	°C

**Characteristics (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	104	°C/W
Thermal Resistance, Junction to Ambient Air (Note 2)	$R_{\theta JA}$	62.5	°C/W

- Notes: 1. Device mounted on FR-4 PCB with minimum recommended pad layout.  
2. Device mounted on Polyimide PCB with 330mm<sup>2</sup> oz. Copper pad layout.

**Electrical Characteristics (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	$BV_{CBO}$	$I_C = -100\mu A, I_E = 0$	-100			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -10mA, I_B = 0$	-60			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E = -100\mu A, I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -100V, I_B = 0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6V, I_C = 0$			-100	nA
DC current gain*	$h_{FE}$	$V_{CE} = -2V, I_C = -0.5A$	150			
		$V_{CE} = -2V, I_C = -1A$	120		360	
		$V_{CE} = -2V, I_C = -2A$	100			
		$V_{CE} = -2V, I_C = -6A$	70			
Equivalent On-Resistance	$R_{CE(sat)}$	$I_C = -2A, I_B = -0.2A$			60	mΩ
Base-emitter saturation voltage*	$V_{BE(sat)}$	$I_C = -1A, I_B = -0.1A$			-1.0	V
Base-Emitter Turn-on Voltage	$V_{BE(on)}$	$V_{CE} = -2V, I_C = -1A$			-0.9	V
Transition frequency	$f_T$	$V_{CE} = -10V, I_B = -0.1A$ $f = 100MHz$	100			MHz
Output Capacitance	$C_{obo}$	$V_{CB} = -10V, f = 1MHz$		30		pF
Input Capacitance	$C_{ibo}$	$V_{EB} = -10V, f = 1MHz$		300		pF

\* Pulse test:  $PW \leq 300\mu s$ , duty cycles  $\leq 2\%$  Pulse

Typical Characteristic

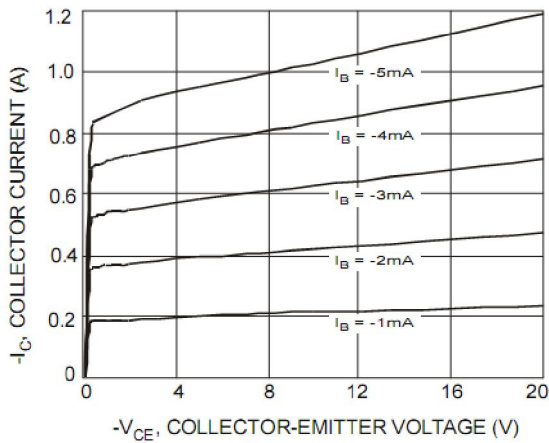


Figure 1. Static Characteristic

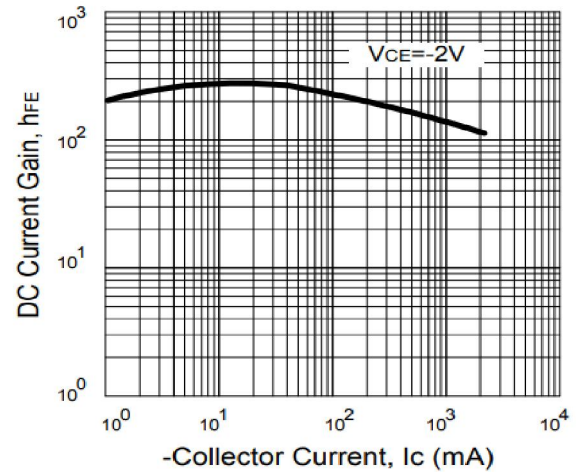


Figure 2. DC current Gain

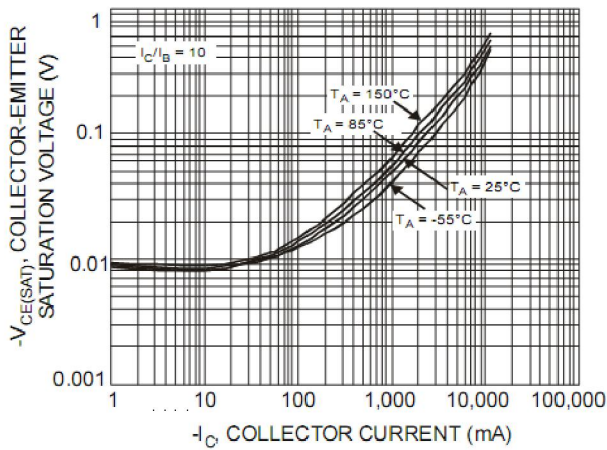


Figure 3. Saturation Voltage

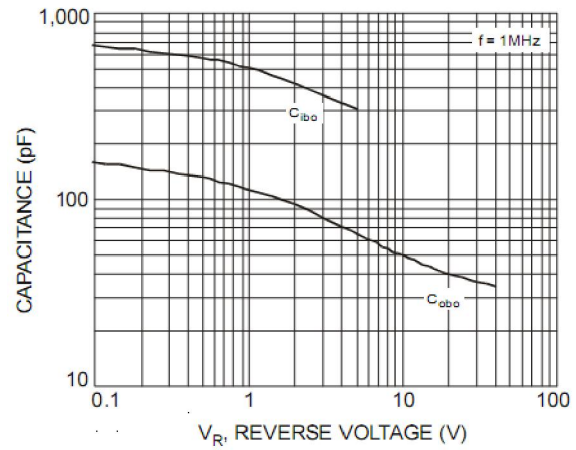


Figure 4. Capacitance Characteristic

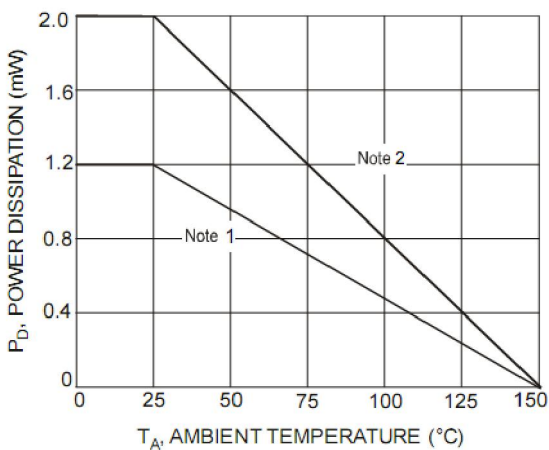


Figure 5. Power Derating

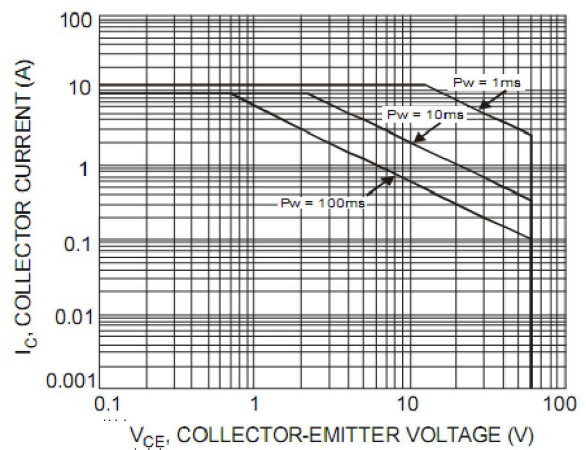


Figure 6. Safe Operating Area

Package Dimensions

