

Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 500\mu\text{A}, I_E = 0$	1050			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 5\text{mA}, I_B = 0$	400			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}, I_C = 0$	15		23	V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 1050\text{V}, I_E = 0$			1	mA
I_{CEO}	Collector Cut-off Current	$V_{CB} = 400\text{V}, I_B = 0$			250	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 15\text{V}, I_C = 0$			1	mA
h_{FE}	DC Current Gain	$V_{CE} = 5\text{V}, I_C = 0.1\text{A}$ $V_{CE} = 3\text{V}, I_C = 0.8\text{A}$	45 20		100 50	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}, I_B = 0.2\text{A}$			0.5	V
		$I_C = 3.5\text{A}, I_B = 1.0\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 3.5\text{A}, I_B = 1.0\text{A}$			1.5	V
t_{ON}	Turn On Time	$V_{CC}=125\text{V}, I_C=0.5\text{A}$ $I_{B1}=45\text{mA}, I_{B2}=0.5\text{A}$ $R_L=250\Omega$			1.0	μs
t_{STG}	Storage Time				1.2	μs
t_F	Fall Time				0.3	μs

Typical Performance Characteristics

Figure 1. Static Characteristic

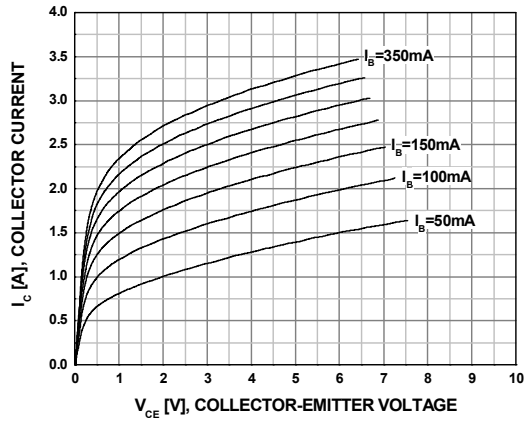


Figure 2. DC Current Gain

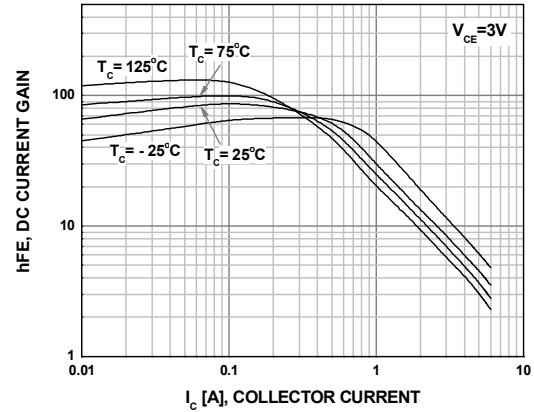


Figure 3. DC Current Gain

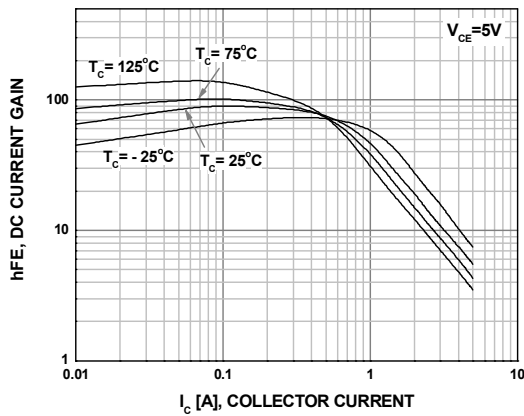


Figure 4. Collector-Emitter Saturation Voltage

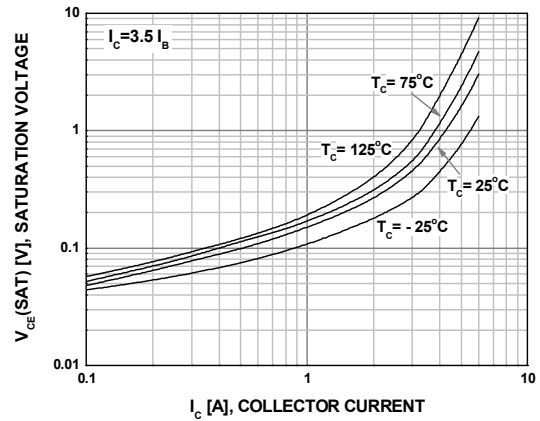


Figure 5. Base-Emitter Saturation Voltage

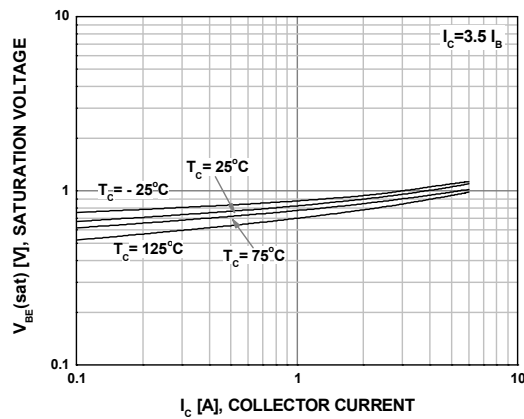
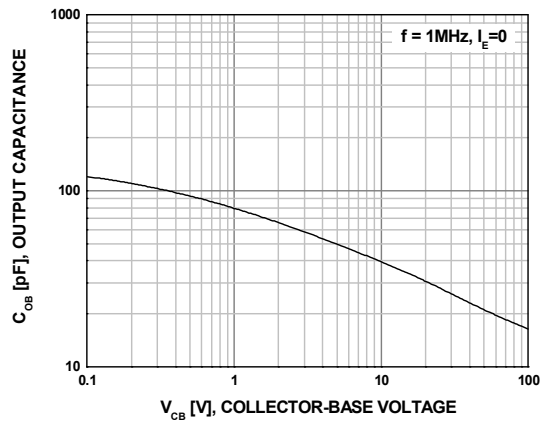


Figure 6. Output Capacitance



Typical Performance Characteristics (Continued)

Figure 7. Reverse Biased Safe Operating Area

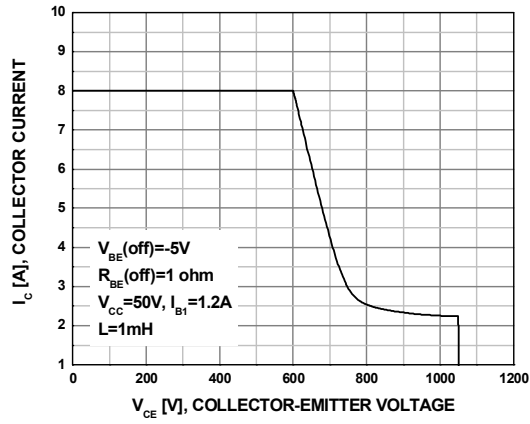


Figure 8. Forward Biased Safe Operating Area

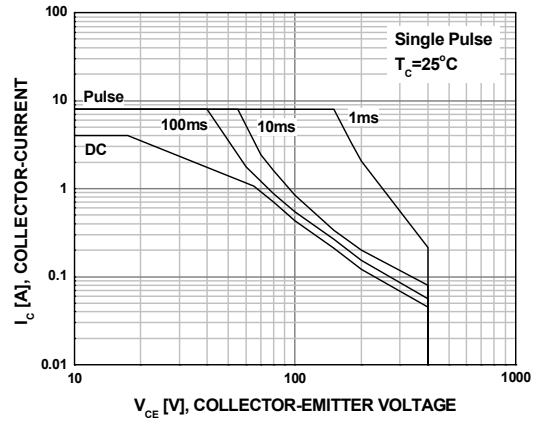
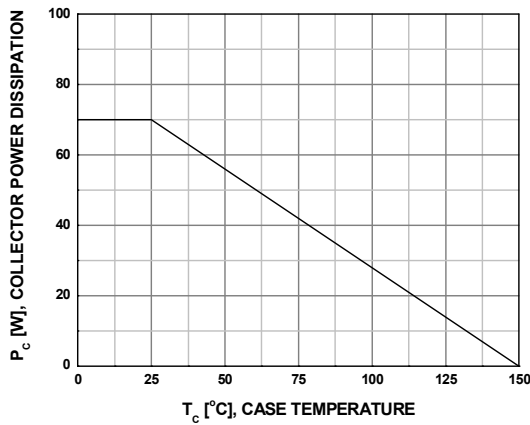


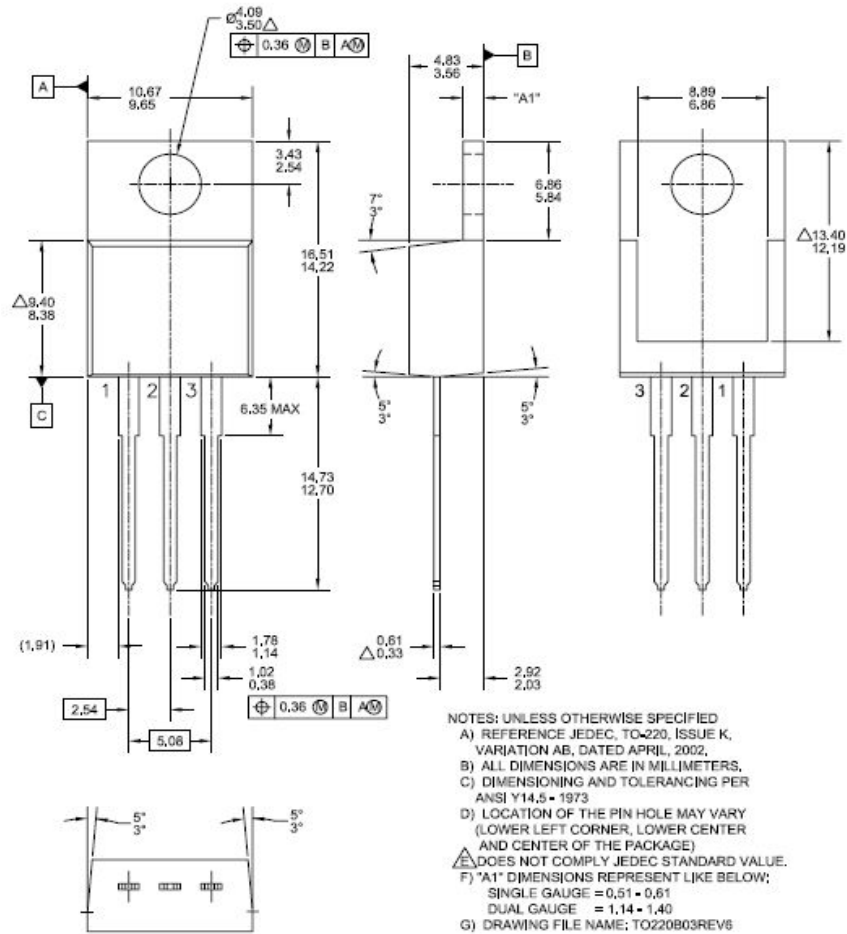
Figure 9. Power Derating Curve



Package Dimension

TO-220

Dimensions are in mm



Dimensions in Millimeters



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