

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS							
$V_{(BR)CEO}^*$	Collector – Emitter Breakdown Voltage	$I_C = 100\text{mA}$ $I_B = 0$		MJ11028 , MJ11029	60		V
				MJ11030 , MJ11031	90		
				MJ11032 , MJ11033	120		
I_{CER}	Collector – Emitter Leakage Current	$V_{CE} = 60\text{V}$ $R_{BE} = 1\text{k}\Omega$ $T_C = 150^\circ\text{C}$		MJ11028 , MJ11029	2		mA
					10		
		$V_{CE} = 90\text{V}$ $R_{BE} = 1\text{k}\Omega$ $T_C = 150^\circ\text{C}$		MJ11030 , MJ11031	2		
					10		
		$V_{CE} = 120\text{V}$ $R_{BE} = 1\text{k}\Omega$ $T_C = 150^\circ\text{C}$		MJ11032 , MJ11033	2		
					10		
I_{EBO}	Emitter Cut–Off Current	$V_{BE} = 5\text{V}$	$I_C = 0$	5		mA	
I_{CEO}	Collector – Emitter Leakage Current	$V_{CE} = 50\text{V}$ $I_B = 0$		2		mA	
ON CHARACTERISTICS							
h_{FE}^*	DC Current Gain	$V_{CE} = 5\text{V}$ $I_C = 25\text{A}$		1000	18000		—
		$V_{CE} = 5\text{V}$ $I_C = 50\text{A}$		400			
$V_{CE(sat)}^*$	Collector – Emitter Saturation Voltage	$I_C = 25\text{A}$ $I_B = 250\text{mA}$		2.5		V	
		$I_C = 50\text{A}$ $I_B = 500\text{mA}$		3.5			
$V_{BE(sat)}^*$	Base – Emitter Saturation Voltage	$I_C = 25\text{A}$ $I_B = 200\text{mA}$		3.0		V	
		$I_C = 50\text{A}$ $I_B = 300\text{mA}$		4.5			

* Pulse Test: $t_p \leq 300\mu\text{s}$, $\delta \leq 2\%$.

Figure 1 – DC Safe Operating Area

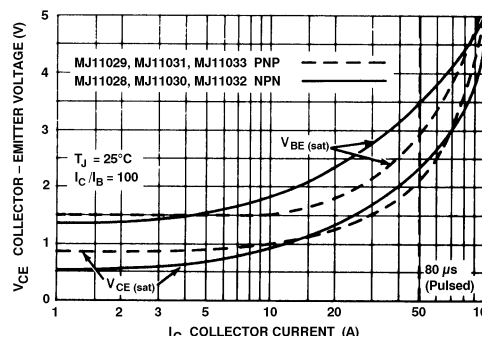


Figure 2 – DC Current Gain

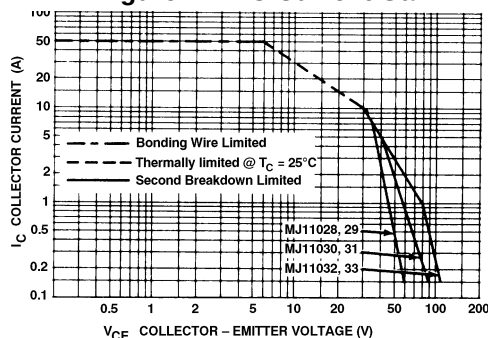


Figure 3 – “ON” Voltage

