

EMB9 / UMB9N / IMB9A

Transistors

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	—	—	−0.3	V	$V_{CC} = -5V, I_o = -100\mu A$
	$V_{I(on)}$	−1.4	—	—		$V_o = -0.3V, I_o = -1mA$
Output voltage	$V_{O(on)}$	—	−0.1	−0.3	V	$I_o/I_i = -5mA/-0.25mA$
Input current	I_i	—	—	−0.88	mA	$V_i = -5V$
Output current	$I_o(off)$	—	—	−0.5	μA	$V_{CC} = -50V, V_i = 0V$
DC current gain	G_i	68	—	—	—	$V_o = -5V, I_o = -5mA$
Transition frequency	f_T	—	250	—	MHz	$V_{CE} = -10mA, I_E = 5mA, f = 100MHz$ *
Input resistance	R_i	7	10	13	$k\Omega$	—
Resistance ratio	R_2 / R_1	3.7	4.7	5.7	—	—

* Transition frequency of the device

●Packaging specifications

Type	Package	Taping		
	Code	T2R	TR	T148
	Basic ordering unit (pieces)	8000	3000	3000
EMB9		○	—	—
UMB9N		—	○	—
IMB9A		—	—	○

●Electrical characteristic curves

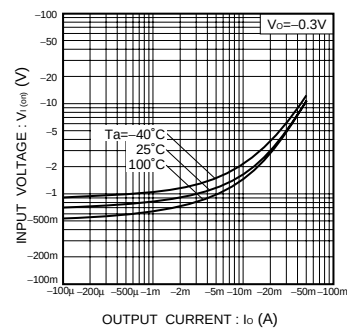


Fig.1 Input voltage vs. output current (ON characteristics)

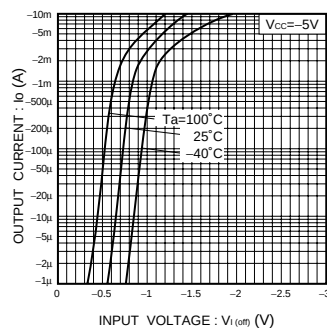


Fig.2 Output current vs. input voltage (OFF characteristics)

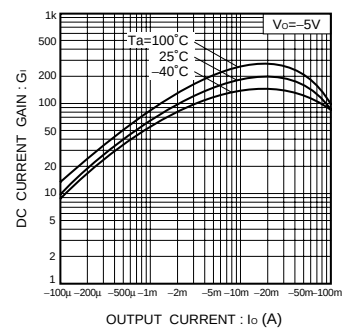


Fig.3 DC current gain vs. output current

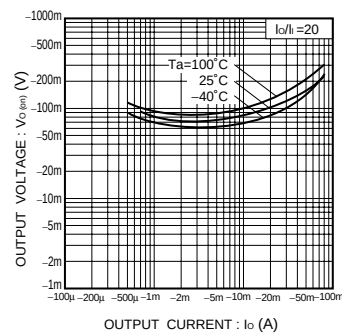


Fig.4 Output voltage vs. output current