



Digital Transistors (Built-in Resistors)

Features



UMD18N

DTR2-PNP

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Input voltage	$V_{I(off)}$	V	$V_{CC}=-5V, I_C=-100\mu A$	-0.3		
	$V_{I(on)}$	V	$V_O=-0.3V, I_C=-20mA$			-2.5
Output voltage	$V_{O(on)}$	V	$I_O / I_i = -10mA / -0.5mA$			-0.3
Input current	I_i	mA	$V_i = -5V$			-1.8
Output current	$I_{O(off)}$	μA	$V_{CC} = -50V, V_i = 0$			-0.5
DC current gain	G_i		$V_O = -5V, I_O = -10mA$	30		
Input resistance	R_i	k Ω		3.29	4.7	6.11
Resistance ratio	R_2/R_1			1.7	2.1	2.6
Transition frequency	f_T	MHz	$V_{CE} = -10V, I_E = -5mA, f = 100MHz$		250	

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
UMD18N	F2	Approximate 0.009g	3000	30000	120000	7" reel

■ Characteristics (Typical)

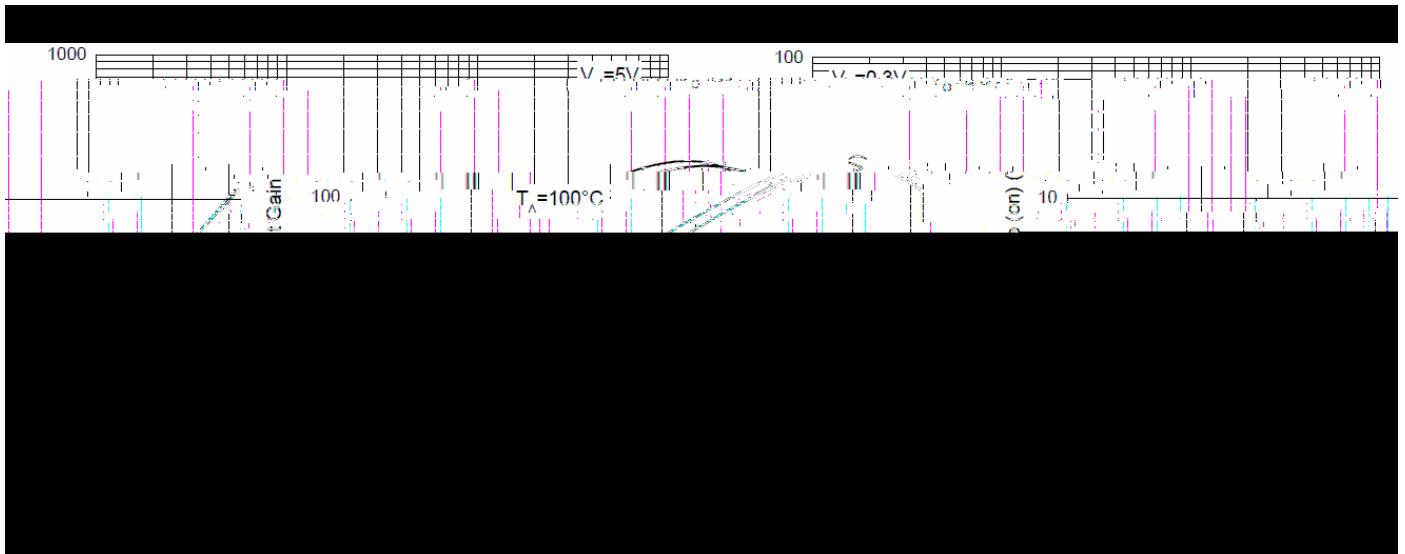


Fig. 3 - DTR1 Input Voltage (off) Characteristics

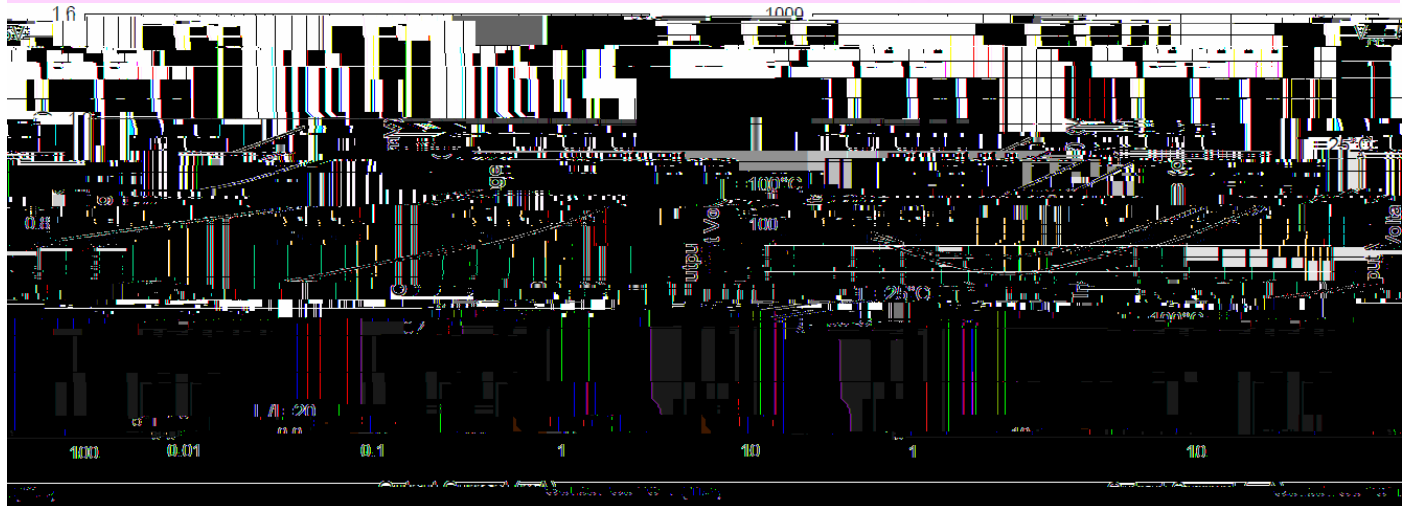


Fig. 4 - DTR1

Fig. 5 - DTR2 DC Current Gain Characteristics

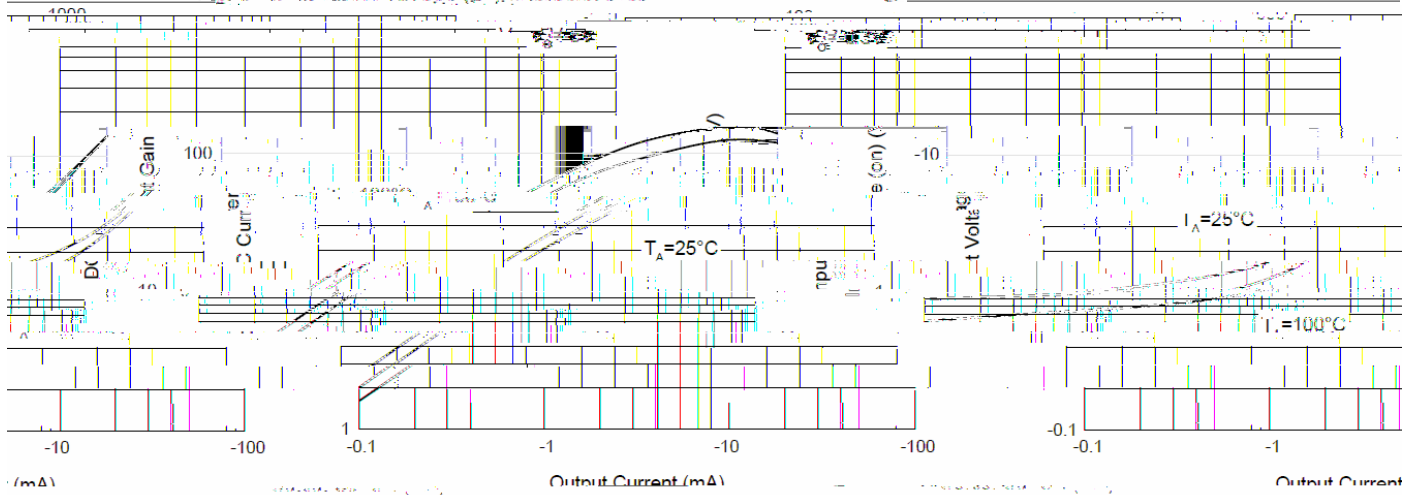


Fig. 6 - DTR2 Input Voltage (off) Characteristics

Fig. 7 - DTR2 Input Voltage (off) Characteristics

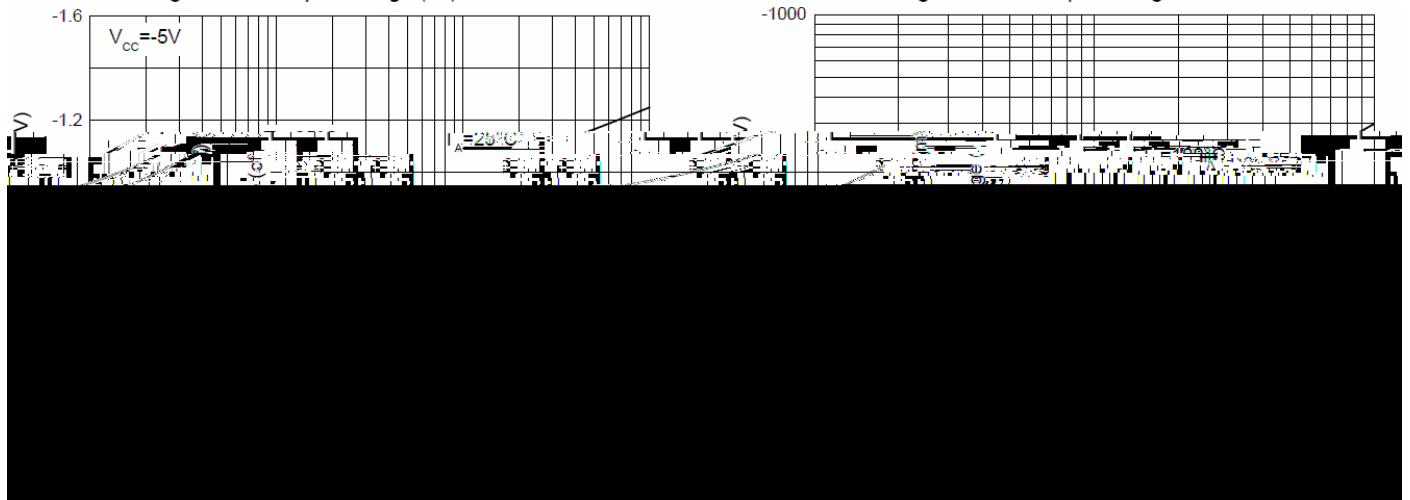


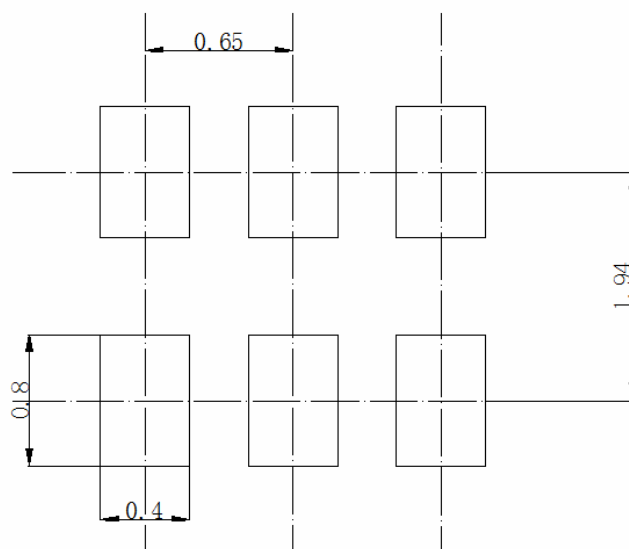
Fig. 8 - DTR2 Output Voltage Characteristics



■SOT-363 Package Outline Dimensions



■SOT-363 Suggested Pad Layout



Unit mm



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