



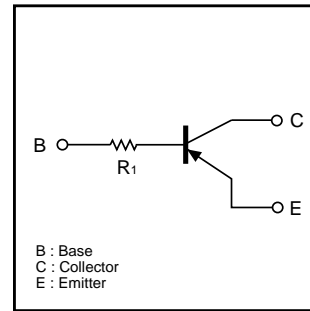
# DTA143TM / DTA143TE / DTA143TUA DTA143TKA / DTA143TSA

## Transistors

### ●Packaging specifications

Part No.	Package	VMT3	EMT3	UMT3	SMT3	SPT
	Package type	Taping	Taping	Taping	Taping	Taping
	Code	T2L	TL	T106	T146	TP
	Basic ordering unit (pieces)	8000	3000	3000	3000	5000
DTA143TM	○	-	-	-	-	-
DTA143TE	-	○	-	-	-	-
DTA143TUA	-	-	○	-	-	-
DTA143TKA	-	-	-	○	-	-
DTA143TSA	-	-	-	-	-	○

### ●Equivalent circuit



$R_1=4.7k\Omega$

### ●Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Limits					Unit
		DTA143TM	DTA143TE	DTA143TUA	DTA143TKA	DTA143TSA	
Collector-base voltage	$V_{CB0}$	-50					V
Collector-emitter voltage	$V_{CE0}$	-50					V
Emitter-base voltage	$V_{EB0}$	-5					V
Collector current	$I_C$	-100					mA
Collector power dissipation	$P_C$	150	200			300	mW
Junction temperature	$T_j$	150					$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150					$^\circ\text{C}$

### ●Electrical characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CB0}$	-50	-	-	V	$I_C=-50\mu\text{A}$
Collector-emitter breakdown voltage	$BV_{CE0}$	-50	-	-	V	$I_C=-1\text{mA}$
Emitter-base breakdown voltage	$BV_{EB0}$	-5	-	-	V	$I_E=-50\mu\text{A}$
Collector cutoff current	$I_{CB0}$	-	-	-0.5	$\mu\text{A}$	$V_{CB}=-50\text{V}$
Emitter cutoff current	$I_{EB0}$	-	-	-0.5	$\mu\text{A}$	$V_{EB}=-4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C/I_B=-5\text{mA}/-0.25\text{mA}$
DC current transfer ratio	$h_{FE}$	100	250	600	-	$I_C=-1\text{mA}$ , $V_{CE}=-5\text{V}$
Input resistance	$R_1$	3.29	4.7	6.11	$k\Omega$	-
Transition frequency	$f_T$ *	-	250	-	MHz	$V_{CE}=-10\text{V}$ , $I_E=5\text{mA}$ , $f=100\text{MHz}$

\* Characteristics of built-in transistor

### ●Electrical characteristic curves

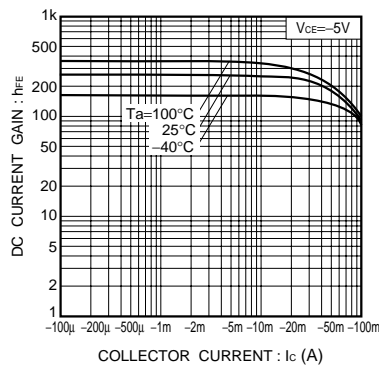


Fig.1 DC current gain vs. collector current

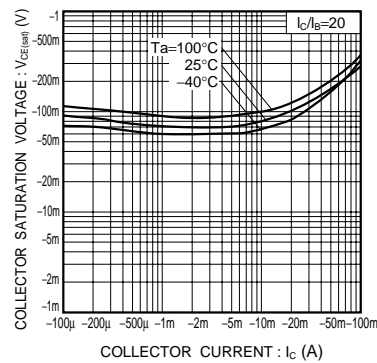


Fig.2 Collector-emitter saturation voltage vs. collector current

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