

NPN Transistors

KTC4379

■ Features

- Low saturation voltage
- High speed switching time
- Complementary to KTA1666

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

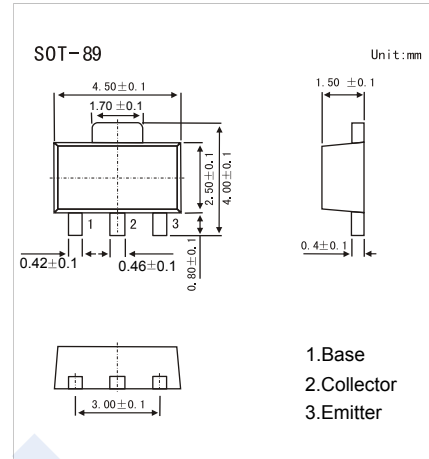
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	50	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_c	2	A
Collector Power Dissipation	P_c	500	mW
		1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = 1\text{ mA}, I_E = 0$	50			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = 10\text{ mA}, I_B = 0$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 1\text{ mA}, I_c = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 50\text{ V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_c = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 1\text{ A}, I_B = 50\text{ mA}$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 1\text{ A}, I_B = 50\text{ mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$	70		240	
		$V_{CE} = 2\text{ V}, I_c = 1.5\text{ A}$	40			
Turn on Time	t_{on}	$V_{CC} = 30\text{ V}, I_c = 1\text{ A}, I_{B1} = -I_{B2} = -0.05\text{ A}$		0.1		us
Storage Time	t_{stg}			1		
Fall Time	t_f			0.1		
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		30		pF
Transition frequency	f_T	$V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$		120		MHz

■ Classification of $h_{FE}(1)$

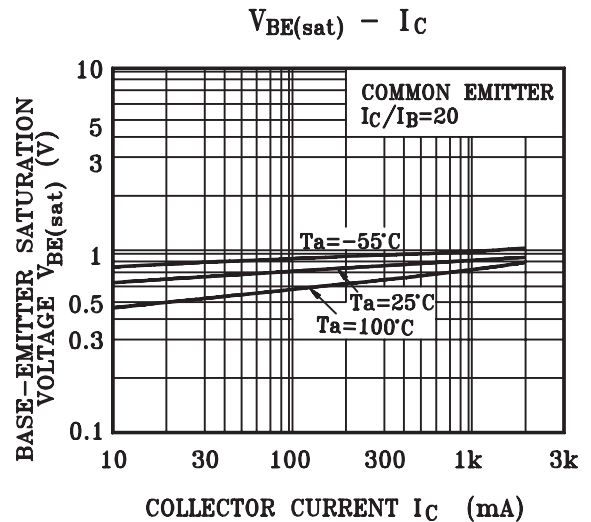
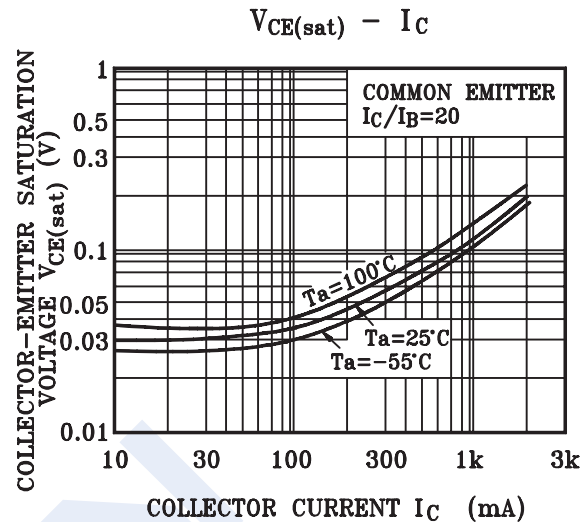
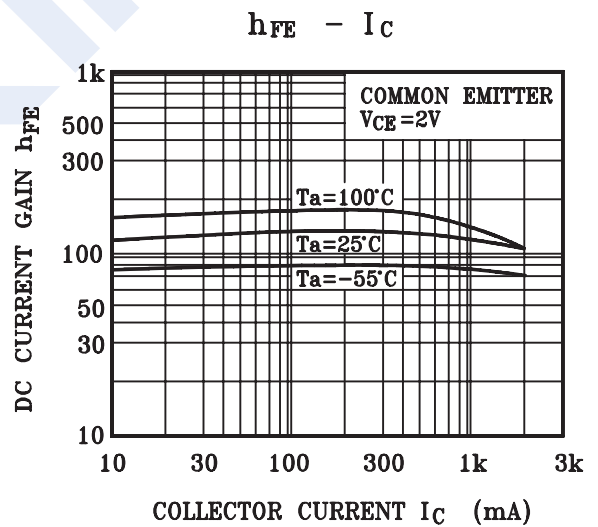
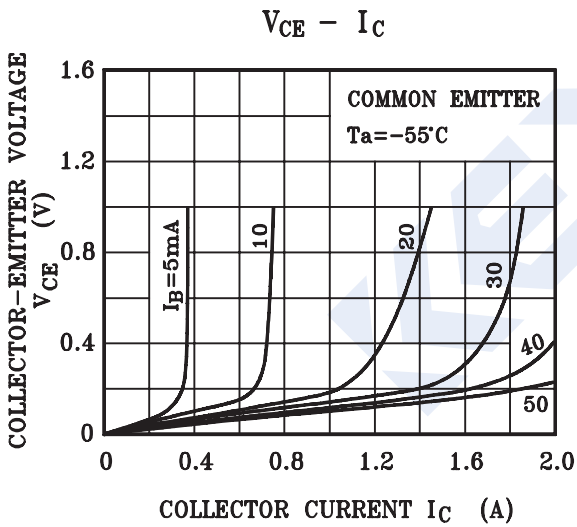
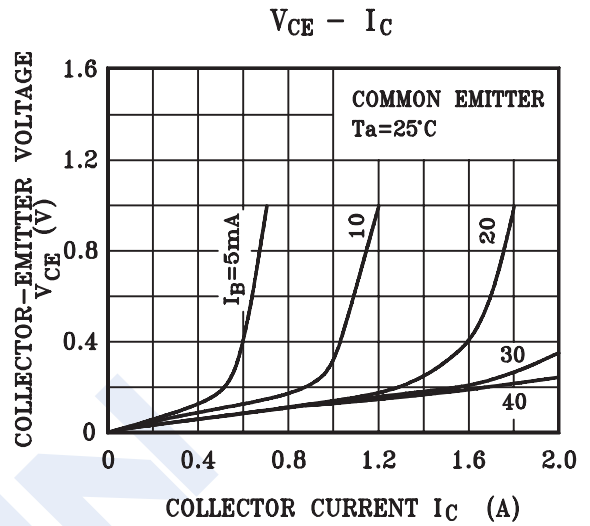
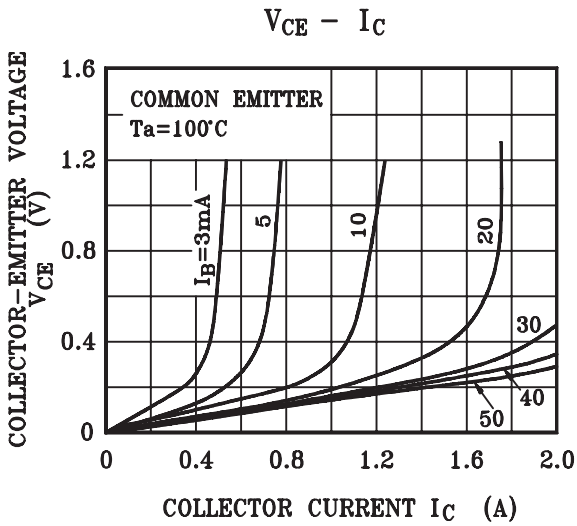
Type	KTC4379-O	KTC4379-Y
Range	70-140	120-240
Marking	UO	UY



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■ Typical Characteristics



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