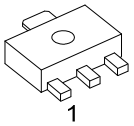
UD2195 **Preliminary** ***NPN SILICON TRANSISTOR***

NPN EPITAXIAL PLANAR TRANSISTOR



SOT- 89

Lead-free: UD2195L
Halogen-free: UD2195G

■ DESCRIPTION

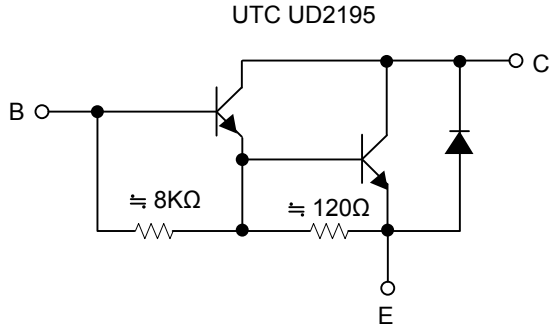
* The UTC **UD2195** is designed for use in general purpose amplifier and low speed switching application.
* Pb-free package process is adopted.

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
UD2195-AB3-R	UD2195L-AB3-R	UD2195G-AB3-R	SOT-89	B	C	E	Tape Reel

UD2195L-AB3-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) AB3: SOT-89 (3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ EQUIVALENT CIRCUIT



B: Base
C: Collector
E: Emitter

■ ABSOLUTE MAXIMUM RATING (T_a=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	130	V
Collector-Emitter Voltage		V_{CEO}	120	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	4	A
	Pulse(Note 2)		6	
Collector Dissipation		P_C	0.6	W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-55 ~ +150	℃

Note: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
2. Pulse test: Pulse Width≦350μs, Duty Cycle≦2%

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction-to-Ambient	θ_{JA}	208	℃/W

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	130			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	120			V
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	V_{CE}=4V, I_C=2A			2.8	V
Collector Cutoff Current	I_{CBO}	V_{CB}=100V, I_E=0			1	mA
Collector Cutoff Current	I_{CEO}	V_{CE}=50V, I_B=0			2	mA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			2	mA
ON CHARACTERISTICS						
DC Current Gain (Note)	h_{FE}	V_{CE}=4V, I_C=1A	1000			
		V_{CE}=4V, I_C=2A	500			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=2A, I_B=2mA			2	V
SMALL-SIGNAL CHARACTERISTICS						
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0A, f=1MHz			200	pF

Note: Pulse test: Pulse Width≦380μs, Duty Cycle≦2%