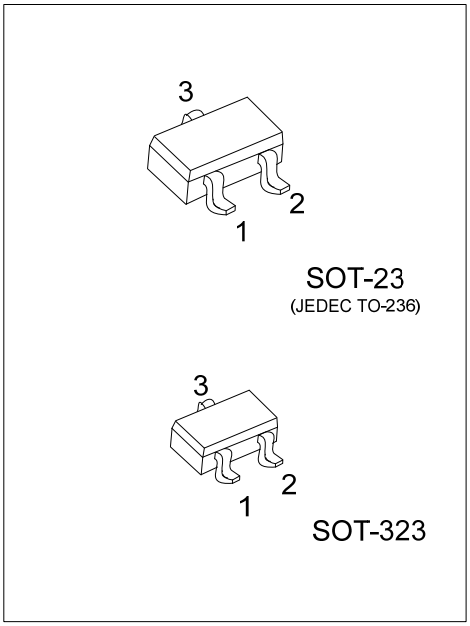
UFS540

NPN SILICON TRANSISTOR

NPN 9GHz WIDEBAND TRANSISTOR



■ DESCRIPTION

The UTC **UFS540** are NPN silicon planar transistor, It is intended for RF wideband amplifier applications such as satellite TV systems and RF portable communication equipment with signal frequencies up to 2 GHz.

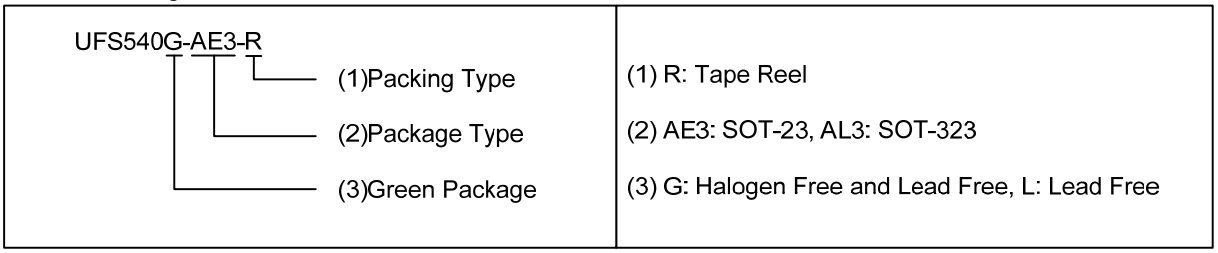
■ FEATURES

* High power gain
* Low noise figure
* High transition frequency
* Gold metallization ensures excellent reliability

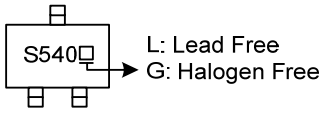
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UFS540L-AE3-R	UFS540G-AE3-R	SOT-23	B	E	C	Tape Reel
UFS540L-AL3-R	UFS540G-AL3-R	SOT-323	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector



■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		BV_{CBO}	20	V
Collector-emitter voltage		BV_{CEO}	14	V
Emitter-Base Voltage		BV_{EBO}	2.5	V
Collector Current		I_C	120	mA
Collector Dissipation	SOT-23	P_C	250	mW
	SOT-323		200	mW
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-50 ~ +150	°C

Note: 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.

■ ELECTRICAL CHARACTERISTICS (T_J=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	Open Emitter			20	V
Collector-Emitter Breakdown Voltage	BV_{CEO}	R_{BE}=0			14	V
Emitter-Base Breakdown Voltage	BV_{EBO}	Open Collector			2.5	V
Collector Cut-off Current	I_{CBO}	V_{CB}=8V,I_E=0			50	nA
DC Current Gain	h_{FE}	I_C=40mA, V_{CE}=8V	60	120	250	
Emitter Capacitance	C_e	I_C=i_C=0, V_{EB}=0.5V, f=1MHz		2.8		pF
Collector Capacitance	C_c	I_E=i_e=0, V_{CB}=8V, f=1MHz		3.4		pF
Feedback Capacitance	C_{re}	I_C=0, V_{CB}=8V, f=1MHz		2.4		pF
Transition Frequency	f_T	I_C=40mA, V_{CE}=8V, f=1GHz, T_A=25°C		9		GHz

.

■ TYPICAL CHARACTERISTICS