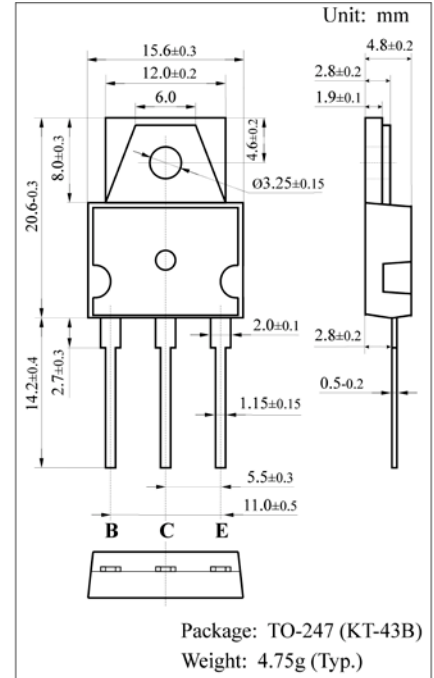
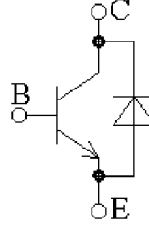


TRANSISTOR SILICON NPN EPITAXIAL TYPE

VL035DN

POWER AMPLIFIER APPLICATIONS

- High Transition Frequency: $f_T=100\text{MHz}$ (Min.)
- Complementary to VL035DP
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	250	V
Collector-Emitter Voltage	V_{CE0}	200	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	15	A
Base Current	I_B	3	A
Diode Forward Voltage	I_F	15	A
Collector Power Dissipation ($T_C=25^\circ\text{C}$)	P_C	150	W
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-60 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=250\text{V}, I_E=0$	—	—	50.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	—	—	50.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	200	—	—	V
DC Current Gain	H_{21E}	$V_{CE}=5\text{V}, I_C=1\text{A}$	50	—	150	
		$V_{CE}=5\text{V}, I_C=7\text{A}$	—	70	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=7\text{A}, I_B=0.7\text{A}$	—	0.25	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=7\text{A}, I_B=0.7\text{A}$	—	1.1	1.5	V
Diode Forward Voltage	V_F	$I_F=10\text{A}$	—	1.1	1.5	V
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=1\text{A}$	100	—	—	MHz
Collector Output Capacitance	C_{OB}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	—	210	250	pF

