

isc Silicon PNP Darlington Power Transistor

BDV64/A/B/C

DESCRIPTION

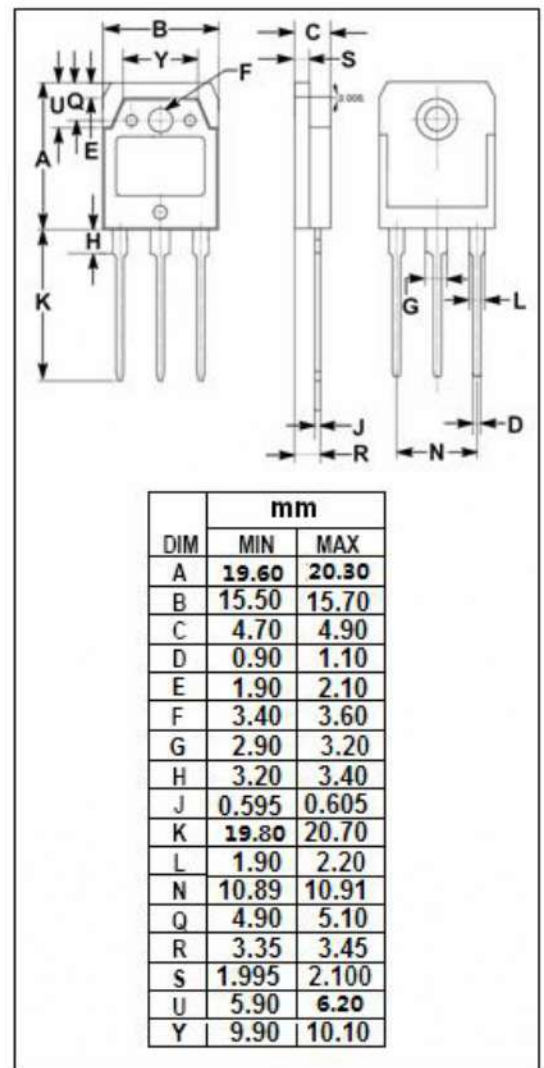
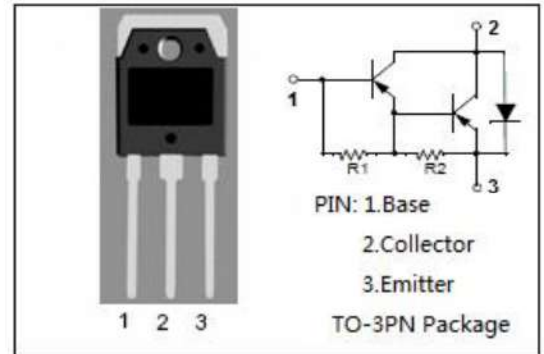
- Collector Current $-I_C = -12A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -2.0V(\text{Max.}) @ I_C = -5A$
- Complement to Type BDV65/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio output stages and general amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BDV64	-60
		BDV64A	-80
		BDV64B	-100
		BDV64C	-120
V_{CEO}	Collector-Emitter Voltage	BDV64	-60
		BDV64A	-80
		BDV64B	-100
		BDV64C	-120
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-12	A
I_{CM}	Collector Current-Peak	-20	A
I_B	Base Current-Continuous	-0.5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	125	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	3.5	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	°C/W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35.7	°C/W

ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	BDV64	$I_C = -30\text{mA}; I_B = 0$	-60			V
		BDV64A		-80			
		BDV64B		-100			
		BDV64C		-120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C = -5\text{A}; I_B = -20\text{mA}$			-2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage		$I_C = -5\text{A}; V_{CE} = -4\text{V}$			-2.5	V
I_{CEO}	Collector Cutoff Current		$V_{CE} = \frac{1}{2}V_{CE0max}; I_B = 0$			-2.0	mA
I_{CBO}	Collector Cutoff Current	BDV64	$V_{CB} = -40\text{V}; I_E = 0; T_J = 150^\circ\text{C}$			-2.0	mA
		BDV64A	$V_{CB} = -50\text{V}; I_E = 0; T_J = 150^\circ\text{C}$				
		BDV64B	$V_{CB} = -60\text{V}; I_E = 0; T_J = 150^\circ\text{C}$				
		BDV64C	$V_{CB} = -70\text{V}; I_E = 0; T_J = 150^\circ\text{C}$				
I_{CBO}	Collector Cutoff Current		$V_{CB} = V_{CB0max}; I_E = 0$			-0.4	mA
I_{EBO}	Emitter Cutoff Current		$V_{EB} = -5\text{V}; I_C = 0$			-5	mA
h_{FE}	DC Current Gain		$I_C = -5\text{A}; V_{CE} = -4\text{V}$	1000			

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