

**isc Silicon NPN Power Transistor**
**2SD2328**
**DESCRIPTION**

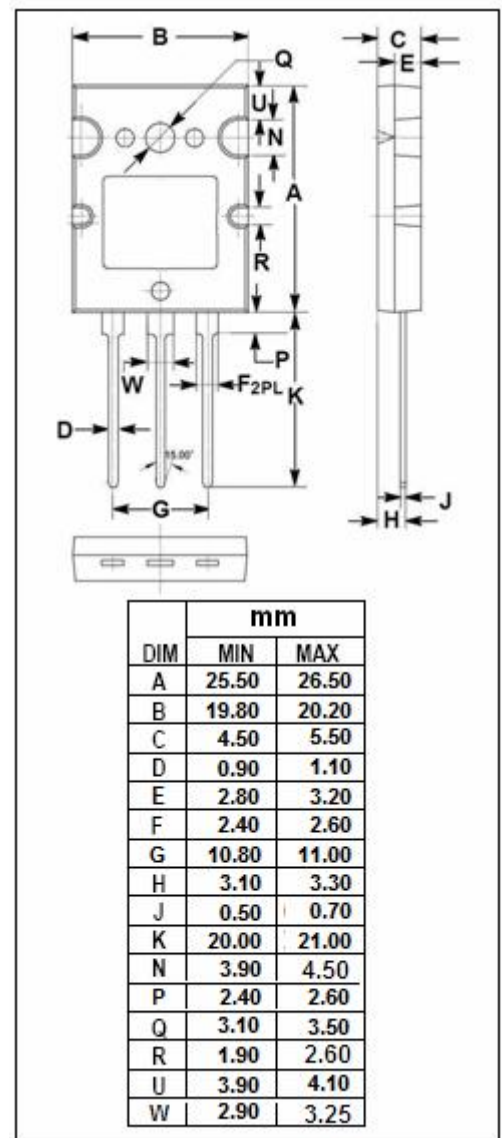
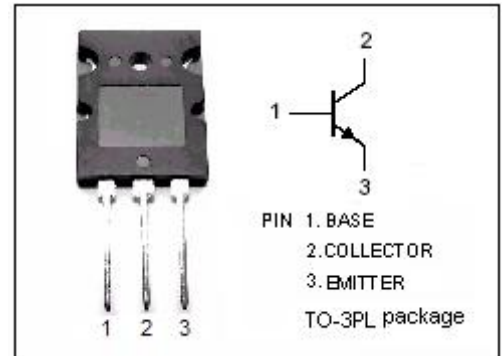
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 180V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})} = 3.0V(\text{Max}) @ I_C = 10A, I_B = 1A$
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	180	V
$V_{CEO}$	Collector-Emitter Voltage	180	V
$V_{EBO}$	Emitter-Base voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$I_B$	Base Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	150	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{\text{stg}}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SD2328****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	$I_C=50\text{mA}; I_B=0$	180			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=1\text{A}$			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=8\text{A}; V_{CE}=5\text{V}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=180\text{V}; I_E=0$			5.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			5.0	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	55		160	
$h_{FE-2}$	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	35			
$f_T$	Current-Gain—Bandwidth Product	$I_C=1\text{A}; V_{CE}=5\text{V}$		30		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}, f_{test}=1\text{MHz}$		270		pF

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