

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6557
2N6558
2N6559
NPN SILICON HIGH-VOLTAGE TRANSISTOR

JEDEC TO-202 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR Series types are Silicon NPN Triple Diffused Transistors designed for video output and similar applications where high breakdown voltage is required.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	2N6557	2N6558	2N6559	UNIT
Collector-Base Voltage	V_{CBO}	250	300	350	V
Collector Emitter Voltage	V_{CEO}	250	300	350	V
Emitter Base Voltage	V_{EBO}		6.0		V
Collector Current	I_C		0.5		A
Collector Current (PEAK)	I_{CM}		0.7		A
Base Current	I_B		250		mA
Power Dissipation	P_D		2.0		W
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D		10		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 TO +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}		62.5		$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{JC}		12.5		$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

		2N6557		2N6558		2N6559		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB}=150\text{V}$		0.2		-		-	μA
I_{CBO}	$V_{CB}=200\text{V}$		-		0.2		-	μA
I_{CBO}	$V_{CB}=250\text{V}$		-		-		0.2	μA
I_{EBO}	$V_{BE}=5.0$		0.1		0.1		0.1	μA
BV_{CBO}	$I_C=100\mu\text{A}$	250		300		350		V
BV_{CEO}	$I_C=1.0\text{mA}$	250		300		350		V
BV_{EBO}	$I_E=100\mu\text{A}$	6.0		6.0		6.0		V
$V_{CE}(\text{SAT})$	$I_C=30\text{mA}, I_B=3.0\text{mA}$		0.6		0.6		0.6	V
$V_{CE}(\text{SAT})$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		1.5		1.5		1.5	V
$V_{BE}(\text{ON})$	$V_{CE}=10\text{V}, I_C=30\text{mA}$		0.85		0.85		0.85	V
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	25		25		25		
h_{FE}	$V_{CE}=10\text{V}, I_C=30\text{mA}$	40	180	40	180	40	180	
f_T	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=20\text{MHz}$	45	200	45	200	45	200	MHz
C_{ob}	$V_{CB}=20\text{V}, I_E=0, f=1.0\text{MHz}$		3.0		3.0		3.0	pF